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2. C.A. Vacanti and A.G. Mikos, "Letter from the Editors," *Tissue Eng.*, 1, 1-2 (1995).
3. A.G. Mikos, "Guest Editorial," *Biomaterials*, 17, 81 (1996).
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6. A.G. Mikos, "Section Five: Active Implants," in *Handbook of Biomaterials Evaluation*, 2nd ed., A.F. von Recum, Ed., Taylor & Francis, Washington, D.C., 1998, p. 373.
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8. A.G. Mikos and D.J. Mooney, "Preface," *J. Drug Targ.*, 9, 395-396 (2001).
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### Book Reviews

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2. A.G. Mikos and N.A. Peppas, Book Review of *Polymeric Nanoparticles and Microspheres*, by P. Guiot and P. Couvreur, Eds., *Polym. News*, 12, 32 (1986).
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### Presentations in National and International Meetings



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1. A.G. Mikos\*, C.G. Takoudis, and N.A. Peppas, "Modeling of Suspension Copolymerization/Crosslinking of Styrene," Annual AIChE Meeting, San Francisco, California, November 27, 1984.
2. A.G. Mikos, C.G. Takoudis\*, and N.A. Peppas, "Integral Methods in Polymerization Reaction Engineering," Integral Methods in Science and Engineering 1985, Arlington, Texas, March 18, 1985.
3. A.G. Mikos, N.A. Peppas\*, and C.G. Takoudis, "Modeling of Suspension Copolymerization/Crosslinking of Styrene with Divinylbenzene," National ACS Meeting, Miami Beach, Florida, May 1, 1985.
4. N.A. Peppas\* and A.G. Mikos, "Polymer/Glycoprotein Chain Interpenetration in Bioadhesion," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985.
5. A.G. Mikos\* and N.A. Peppas, "The Kinetics of Preparation of PHEMA Microparticles by Suspension Copolymerization/Crosslinking with EGDMA," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 11, 1985.
6. N.A. Peppas\* and A.G. Mikos, "Molecular Aspects of Polymer Adhesion on Mucus," National ACS Meeting, Chicago, Illinois, September 9, 1985.
7. A.G. Mikos\*, C.G. Takoudis, and N.A. Peppas, "Kinetic Modelling of Copolymerization-Crosslinking Reactions," Annual AIChE Meeting, Chicago, Illinois, November 14, 1985.
8. N.A. Peppas\* and A.G. Mikos, "Interfacial Phenomena Related to Bioadhesion of Polymers on the Intestinal Mucus," Annual AIChE Meeting, Chicago, Illinois, November 15, 1985.
9. N.A. Peppas\* and A.G. Mikos, "Measurement of Bioadhesive Force between a Polymer Microparticle and Mucin Gels," International Biomedical Engineering Symposium, Salt Lake City, Utah, January 21, 1986.
10. A.G. Mikos and N.A. Peppas\*, "Comparison of Experimental Techniques for the Measurement of the Bioadhesive Forces of Polymeric Materials with Soft Tissues," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 5, 1986.
11. N.A. Peppas\* and A.G. Mikos, "The Bioadhesive Behavior of 2-Hydroxyethyl Methacrylate-Containing Copolymer Microparticles with Aqueous Gels of Bovine Submaxillary Mucin," 10th European Congress on Biomaterials, Bologna, Italy, September 15, 1986.
12. N.A. Peppas\*, A.G. Mikos, B.D. Barr-Howell, and L.M. Eshelman, "Dynamic Swelling of and Drug Release from Microparticles for Swelling-Controlled Release Applications," 13th Annual Meeting of the European Society for Artificial Organs, Avignon, France, September 18, 1986.
13. N.A. Peppas\* and A.G. Mikos, "Polymer Microparticles on Biological Surfaces," Annual AIChE Meeting, Miami Beach, Florida, November 5, 1986.
14. A.G. Mikos and N.A. Peppas\*, "Crack Healing of Polymer-Polymer Interfaces of Linear Polymers," MRS Fall Meeting, Boston, Massachusetts, December 1, 1987.
15. A.G. Mikos\* and N.A. Peppas, "Effect of Chain Entanglements on the Fracture Characteristics of Polymeric Materials," MRS Fall Meeting, Boston, Massachusetts, December 3, 1987.
16. A.G. Mikos and N.A. Peppas\*, "Fracture Mechanics of Low Molecular Weight Polymers," MRS Spring Meeting, Reno, Nevada, April 5, 1988.

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17. N.A. Peppas\* and A.G. Mikos, "Kinetics of Mucus-Polymer Interactions," International CRS/APV Workshop on Bioadhesion-Possibilities and Future Trends, Leiden, The Netherlands, May 23, 1989.
18. A.G. Mikos\*, A.J. Thorsen, L.A. Czerwonka, Y. Bao, D.N. Winslow, J. Stein, J. Vacanti, and R. Langer, "Preparation and Characterization of Poly(L-Lactic Acid) Foams," Annual AIChE Meeting, Chicago, Illinois, November 16, 1990.
19. A.G. Mikos\* and N.A. Peppas, "Fracture Energy and Critical Strength of High Molecular Weight Glassy Polymers," MRS Fall Meeting, Boston, Massachusetts, November 28, 1990.
20. A.G. Mikos\* and C. Kiparissides, "Asymmetric Membrane Formation in the Heterogeneous Polymerization of Methyl Methacrylate," MRS Fall Meeting, Boston, Massachusetts, November 29, 1990.
21. A.G. Mikos\*, "Fracture of and Adhesion between Biological and Synthetic Macromolecular Materials" (LaMer Award Lecture), 65th Colloid and Surface Science Symposium, Norman, Oklahoma, June 19, 1991.
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23. A.G. Mikos\*, A.M. Whiteman, A.J. Thorsen, M.D. Lyman, J.E. Stein, S. Uyama, D.E. Ingber, J.P. Vacanti, and R. Langer, "Creep Behavior of Poly(Lactic-co-Glycolic Acid) Foams for Liver Regeneration," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
24. J.E. Stein, A.G. Mikos, D. Mooney\*, G. Sarakinos, J.C. Gilbert, D.E. Ingber, J.P. Vacanti, and R. Langer, "Polymer Scaffolds for Hepatocyte Transplantation," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
25. C.A. Vacanti\*, J.P. Vacanti, L. Cima, A.G. Mikos, and R. Langer, "Synthetic Biodegradable Polymers Can Be Configured to Act as a Template for Cell Transplantation and the Generation of New Cartilage and Bone," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
26. L.E. Freed\*, S.B. Weinstock, A.G. Mikos, J.C. Marquis, A. Nohria, A.J. Grodzinsky, and R. Langer, "Chondrocytes Cultured on Synthetic Biodegradable Polymers Grow and Secrete a Cartilage-Like Matrix," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
27. A.G. Mikos, H.-L. Lai\*, S.M. Leite, J.A. Tamada, and R. Langer, "Characterization of Degradation of Poly(L-Lactic Acid) Foams," Annual AIChE Meeting, Los Angeles, California, November 20, 1991.
28. A.G. Mikos, H.L. Wald\*, G. Sarakinos, S.M. Leite, and R. Langer, "Biodegradable Cell Transplantation Devices for Tissue Regeneration," MRS Fall Meeting, Boston, Massachusetts, December 6, 1991.
29. A.G. Mikos\*, D.E. Ingber, J.P. Vacanti, and R. Langer, "Hepatocyte Transplantation with Prevascularized Biodegradable Polymer Foams," 10th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, March 19, 1992.
30. A.G. Mikos\*, G. Sarakinos, M.D. Lyman, D.E. Ingber, J.P. Vacanti, and R. Langer, "Prevascularization of Biodegradable Polymer Scaffolds for Hepatocyte Transplantation," National ACS Meeting, San Francisco, California, April 6, 1992.
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32. A.G. Mikos\*, "Biodegradable Polymers for Tissue Regeneration," 4th Hispanic and 1st Hispanic-Portuguese Congress on Biotechnology (BIOTEC-92), Santiago de Compostela, Spain, September 17, 1992.
33. A.G. Mikos\*, Y. Bao, L.G. Cima, D.E. Ingber, J.P. Vacanti, and R. Langer, "Bonded Poly(Glycolic Acid) Fiber Structures for Cell Transplantation," Annual AIChE Meeting, Miami Beach, Florida, November 2, 1992.
34. K. Zygourakis and A.G. Mikos\*, "Discrete Modeling of Surface Erosion of Biodegradable Copolymers," Annual AIChE Meeting, Miami Beach, Florida, November 6, 1992.
35. A.G. Mikos\*, "Biodegradable Polymer Scaffolding for Tissue Regeneration and Repair," 11th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 1993.
36. A.G. Mikos\*, "Biodegradable Polymer Scaffolding for Tissue Regeneration," The Monte Verità Conference 1993 on Biocompatible Materials Systems, Ascona, Switzerland, October 13, 1993.
37. M.J. Yaszemski\*, A.G. Mikos, W.C. Hayes, and R. Langer, "A Temporary Replacement for Trabecular Bone: Design, Synthesis, and Characterization of a Degradable Polymeric Biomaterial," Annual AIChE Meeting, St. Louis, Missouri, November 8, 1993.
38. M.C. Wake, C.W. Patrick, Jr., and A.G. Mikos\*, "Creation of Vascularized Beds for Cell Transplantation," Annual AIChE Meeting, St. Louis, Missouri, November 8, 1993.
39. R.C. Thomson\*, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "A Novel Biodegradable Poly(Lactic-co-Glycolic Acid) Foam for Bone Regeneration," MRS Fall Meeting, Boston, Massachusetts, November 29, 1993.
40. S.L. Ishaug\*, M.J. Yaszemski, R. Bizios, and A.G. Mikos, "Osteoblast Adhesion on Biodegradable Polymer Substrates," MRS Fall Meeting, Boston, Massachusetts, November 30, 1993.
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47. A.G. Mikos\*, R. Bizios, S.L. Ishaug, R.C. Thomson, M.C. Wake, and M.J. Yaszemski, "Polymer/Cell Constructs to Engineer Organs," 5th International ITV Conference on Biomaterials; Biohybrid Organs: Combination of Biomaterials and Cells to Functional Units, Denkendorf, Germany, June 8, 1994.
48. R.L. Cleek\*, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "Inhibition of Smooth Muscle Cell Proliferation via Controlled Release of Antisense Oligonucleotides," 21st International Symposium on Controlled Release of Bioactive Materials, Nice, France, June 28, 1994.
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50. A.G. Mikos\*, "Bioadhesive Polymers for Controlled Drug Delivery," Surfaces in Biomaterials, Scottsdale, Arizona, September 8, 1994.
51. R.L. Cleek, C. Stine, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos\*, "Antisense Oligonucleotide Delivery Targeted to Tenascin via Biodegradable Polymer Systems to Inhibit SMC Growth," Annual BMES Fall Meeting, Tempe, Arizona, October 15, 1994.
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59. R.G. Payne\*, M.J. Yaszemski, W.C. Hayes, R.S. Langer, T.B. Aufdemorte, and A.G. Mikos, "A Temporary Replacement for Trabecular Bone: The Design, Synthesis, and

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- Testing of a Novel Degradable Material for Orthopaedic Applications,” Annual AIChE Meeting, San Francisco, California, November 16, 1994.
60. A.G. Mikos\*, “Polymer Fabrication,” First International Congress on Cellular Therapy & Tissue Engineering, BioEast’95, Washington, D.C., January 9, 1995.
  61. M.J. Yaszemski, R.G. Payne\*, T.B. Aufdemorte, W.C. Hayes, R.S. Langer, and A.G. Mikos, “A Temporary Replacement for Trabecular Bone: The Design and Testing of a Novel Degradable Composite Biomaterial,” 13th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 16, 1995.
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72. A.G. Mikos\*, "Delivery of Antisense Oligonucleotides with Biodegradable Polymers," 41st ASAO (American Society for Artificial Internal Organs) Annual Conference, Chicago, Illinois, May 6, 1995.
73. R.C. Thomson, J.H. Collier, A.G. Mikos, C.A. Garcia, and G.G. Giordano\*, "Physical Characteristics of Biodegradable Polymer Substrates for RPE Cells," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, May 15, 1995.
74. G.G. Giordano\*, I.H. Husaini, D. Lahiri-Munir, A.G. Mikos, and C.A. Garcia, "Biodegradable Polymer Films for RPE Cell Transplantation," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, May 15, 1995.
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77. A.G. Mikos\*, "Tissue-Engineered Trabecular Bone," International Business Communications Conference on Tissue Engineering and Repair, Washington, D.C., August 9, 1995.
78. G.M. Crane\*, S.L. Ishaug, M.J. Miller, A.W. Yasko, T.B. Aufdemorte, M.J. Yaszemski, and A.G. Mikos, "Bone Formation Using Porous Poly(Lactic-co-Glycolic Acid) Seeded with Stromal Osteoblast Cells," Annual BMES Fall Meeting, Boston, Massachusetts, October 6, 1995.
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80. A.G. Mikos\*, "Engineering Trabecular Bone Using Biodegradable Polymers," Taniguchi Conference on the Tissue Engineering with the Use of Biomedical Polymers, Kyoto, Japan, November 9, 1995.
81. A.D. Ouellette\*, J.-L. Tang, A.-L. Tsai, K.K. Wu, and A.G. Mikos, "Targeted Gene Delivery to Endothelial Cells to Prevent Thrombosis and Restenosis," Annual AIChE Meeting, Miami Beach, Florida, November 14, 1995.
82. A.C. Jen, S.L. Ishaug, M.J. Yaszemski, L.V. McIntire, and A.G. Mikos\*, "Three Dimensional *In Vitro* Polymer-Matrix/Cell Model for Bone Formation," Annual AIChE Meeting, Miami Beach, Florida, November 15, 1995.
83. M.J. Miller\*, D.P. Goldberg, A.W. Yasko, J.C. Lemon, W.C. Satterfield, M.C. Wake, A.G. Mikos, and M.J. Yaszemski, "Prefabricated Bone Flaps in Sheep," Annual ASRM (American Society for Reconstructive Microsurgery) Meeting, Tucson, Arizona, January 16, 1996.
84. G.M. Crane\*, S.L. Ishaug, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Three-Dimensional Bone Formation Using Biodegradable Polymer/Stromal Osteoblast Constructs," Keystone Symposium on Tissue Engineering, Taos, New Mexico, January 24, 1996.

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85. M.J. Yaszemski\* and A.G. Mikos, "Degradable Polymers with Osteoblast Transplantation as Strategies for Bone Tissue Engineering," Cell Culture Engineering V (Engineering Foundation Conferences), San Diego, California, January 30, 1996.
86. A.D. Ouellette\*, K.-H. Ruan, A.-L. Tsai, K.K. Wu, and A.G. Mikos, "Synthesis and Characterization of a Poly(L-lysine)/Anti-Thrombomodulin Conjugate for Targeted Gene Delivery to Endothelial Cells," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
87. S.J. Peter\*, P.A. Engel, L.B. Alemany, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Synthesis and Characterization of an Osteoinductive, Injectable, Biodegradable Bone Cement," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
88. M.C. Wake\*, P.K. Gupta, and A.G. Mikos, "Fabrication of Pliable Biodegradable Polymer Foams to Engineer Soft Tissues," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
89. S.L. Ishaug, G.M. Crane\*, M.J. Yaszemski, and A.G. Mikos, "Three-Dimensional Calvaria Osteoblast Culture in Biodegradable Polymer Scaffolds," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
90. A.C. Jen\*, S.L. Ishaug, M.J. Yaszemski, L.V. McIntire, and A.G. Mikos, "Three Dimensional *In Vitro* Mechanical Model for Bone Formation," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
91. E.K. Beahm\*, R.C. Thomson, M.J. Yaszemski, A.G. Mikos, and M.J. Miller, "Guided Bone Growth in Sheep," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
92. S.L. Ishaug\*, G.M. Crane, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Bone Formation Using Stromal Osteoblasts Cultured in Biodegradable Polymer Foams," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
93. L.J. Suggs\*, M.J. Yaszemski, K.K. Wu, and A.G. Mikos, "The Synthesis and Characterization of a Novel Block Copolymer Consisting of Poly(propylene fumarate) and Poly(ethylene glycol)," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
94. G.M. Crane, S.L. Ishaug\*, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Three-Dimensional Bone Formation Using Biodegradable Polymer/Stromal Osteoblast Constructs," 15th Southern Biomedical Engineering Conference, Dayton, Ohio, March 31, 1996.
95. A.G. Mikos\*, "Biomaterials for Tissue Engineering" (Outstanding Young Investigator Award Presentation), MRS Spring Meeting, San Francisco, California, April 9, 1996.
96. L. Lu\*, R.C. Thomson, A.G. Mikos, R.C. Hunt, G.G. Giordano, C.A. Garcia, and D. Lahiri-Munir, "Human RPE Like Cell Culture on Biodegradable Polymer Substrates," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, April 21, 1996.
97. S.L. Ishaug, G.M. Crane, and A.G. Mikos\*, "3-D Osteoblast Culture in Biodegradable Polymer Foams," 5th World Biomaterials Congress, Toronto, Canada, May 30, 1996.

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98. M.C. Wake\*, P.K. Gupta, and A.G. Mikos, "Pliable Degradable Polymer Foams to Engineer Soft Tissues," 5th World Biomaterials Congress, Toronto, Canada, June 2, 1996.
99. A.C. Jen\*, S.L. Ishaug, M.J. Yaszemski, L.V. McIntire, and A.G. Mikos, "Three Dimensional *In Vitro* Mechanical Model for Bone Formation," 5th World Biomaterials Congress, Toronto, Canada, June 2, 1996.
100. A.G. Mikos\*, "Osteoblast Transplantation and Bone Tissue Engineering," International Symposium on Endocrine Cell Transplantation and Genetic Engineering, Giessen, Germany, June 18, 1996.
101. A.D. Ouellette\*, K.-H. Ruan, A.-L. Tsai, K.K. Wu, and A.G. Mikos, "A Poly(L-Lysine)/ Anti-Thrombomodulin Conjugate for Targeted Gene Delivery to Endothelial Cells," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 9, 1996.
102. S.J. Peter and A.G. Mikos\*, "Injectable Cell Adhesion Specific Biodegradable Polymers," 5th World Congress of Chemical Engineering, San Diego, California, July 16, 1996.
103. S.L. Ishaug, G.M. Crane, M.J. Yaszemski, and A.G. Mikos\*, "Three-Dimensional Osteoblast Migration in Biodegradable Polymer Foams," 5th World Congress of Chemical Engineering, San Diego, California, July 16, 1996.
104. R.L. Cleek, A.G. Mikos\*, A.A. Rege, L. Denner, and S.G. Eskin, "Controlled Delivery of Inhibitors of Smooth Muscle Cell Proliferation Using Biodegradable Polymer Microparticles," 5th World Congress of Chemical Engineering, San Diego, California, July 17, 1996.
105. A.C. Jen, A.G. Mikos\*, J. Mayer, and E. Wintermantel, "Biocompatible Fiber-Reinforced Composites for Culturing Osteoblasts," Annual BMES Fall Meeting, State College, Pennsylvania, October 6, 1996.
106. S.J. Peter, J. Nolley, P.S. Engel, L.B. Alemany, A.G. Mikos\*, M.J. Miller, and M.J. Yaszemski, "Synthesis and Characterization of a Functionalized, Unsaturated Linear Polyester," Annual AIChE Meeting, Chicago, Illinois, November 13, 1996.
107. R.L. Cleek\*, A.G. Mikos, A.A. Rege, L. Denner, and S.G. Eskin, "Inhibition of bFGF-Stimulated Smooth Muscle Cell Proliferation by a bFGF Antibody Released from Biodegradable Polymer Microparticles," Annual AIChE Meeting, Chicago, Illinois, November 14, 1996.
108. L.J. Suggs\*, E.Y. Kao, A.G. Mikos, M.J. Yaszemski, and K.K. Wu, "The Characterization of a Poly(Propylene Fumarate) and Poly(Ethylene Glycol) Block Copolymer and Evaluation of the Crosslinked Material for Use as a Vascular Implant," Annual AIChE Meeting, Chicago, Illinois, November 15, 1996.
109. R.D. Bostrom\* and A.G. Mikos, "Effects of Cell Culture Conditions on Bone Tissue Growth Penetration into Biodegradable Polymer Scaffolds," Annual AIChE Meeting, Chicago, Illinois, November 15, 1996.
110. D.A. Ray, A.W. Yasko\*, S.L. Ishaug, G.M. Crane, and A.G. Mikos, "Orthotopic Bone Formation Using Porous Poly(Lactic-co-Glycolic Acid) Implants Seeded with Syngeneic Osteoblasts," Annual AIChE Meeting, Chicago, Illinois, November 15, 1996.
111. A.C. Jen, J.L. Almaguer, S.D. Cho, M.S. Widmer, A.G. Mikos\*, K. Akanbi, and M.C. Farach-Carson, "Three-Dimensional Polymer/Cell Mechanical Model for Bone Formation," Post-ASME Workshop on Cell Biomechanics, Georgia Institute of Technology, Atlanta, Georgia, November 23, 1996.



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112. J.A. Nolley\*, S.J. Peter, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Degradation Study of a Poly(Propylene Fumarate) Based Biodegradable Bone Cement," Inaugural TES Meeting, Orlando, Florida, December 13, 1996.
113. A.W. Yasko\*, S.L. Ishaug-Riley, G.M. Crane, D.A. Ray, and A.G. Mikos, "Orthotopic Bone Formation Using Three Dimensional Osteoblast/Polymer Constructs," Inaugural TES Meeting, Orlando, Florida, December 13, 1996.
114. M.J. Miller\*, A.G. Mikos, M.A. Schusterman, and L.V. McIntire, "The Evolution of a Strategy for Progress in Tissue Engineering," Inaugural TES Meeting, Orlando, Florida, December 14, 1996.
115. G.R.D. Evans\*, K. Brandt, A.G. Mikos, E. Peden, G.M. Crane, and S.L. Ishaug-Riley, "Biodegradable Tissue Engineered Polymer Nerve Conduits: Their Use as Scaffold in Peripheral Nerve Regeneration," Inaugural TES Meeting, Orlando, Florida, December 14, 1996.
116. S.L. Ishaug-Riley\*, G.M. Crane, A. Gurlek, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Ectopic Bone Formation Using Three Dimensional Osteoblast/Polymer Constructs," Annual Meeting of Orthopaedic Research Society, San Francisco, California, February 9, 1997.
117. D.J. Kim\*, S.J. Peter, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Osteoblastic Cellular Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 13, 1997.
118. M.S. Widmer\*, G.R.D. Evans, K. Brandt, T. Savel, C.W. Patrick, Jr., and A.G. Mikos, "Manufacture of Porous Biodegradable Polymer Scaffolds for Nerve Regeneration," 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 14, 1997.
119. G.R.D. Evans, K. Brandt, M.C. Wake, P. Gupta, T. Savel\*, M.S. Widmer, C.W. Patrick, Jr., and A.G. Mikos, "Tissue Engineered Nerve Conduits: The Use of Biodegradable Polymer Scaffolds in Peripheral Nerve Regeneration. A Preliminary Report," 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 14, 1997.
120. R.L. Cleek\*, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "bFGF Antibody Released from Biodegradable Polymer Microparticles Inhibits bFGF-Stimulated Smooth Muscle Cell Proliferation," 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 14, 1997.
121. L. Lu\*, C.A. Garcia, and A.G. Mikos, "Morphological and Structural Properties of a Human RPE Cell Line Cultured on Synthetic Biodegradable Polymers," 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 14, 1997.
122. A.G. Mikos\*, S.L. Riley, G.M. Crane, M.J. Miller, M.J. Yaszemski, and A.W. Yasko, "Cell Based Delivery Systems for Bone Growth Factors," 8th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 24, 1997.
123. M. Smith\*, M.J. Miller, G.M. Crane, A. Khoo, A. Gurlek, and A.G. Mikos, "Cranial Defect Repair with Osteoblast Transplantation," 42nd Annual Meeting of the Plastic Surgery Research Council, Galveston, Texas, February 28, 1997.

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124. L. Lu, A.G. Mikos\*, and C.A. Garcia, "Morphological and Structural Properties of a Human RPE Cell Line Cultured on Biodegradable Polymer Substrates," National ACS Meeting, San Francisco, California, April 16, 1997.
125. S.L. Ishaug-Riley\*, G.M. Crane, A. Gurlek, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Ectopic Bone Formation by Marrow Stromal Osteoblast Transplantation Using Poly(DL-Lactic-co-Glycolic Acid) Foams Implanted into the Rat Mesentery," 23rd Annual Meeting of the Society For Biomaterials, New Orleans, Louisiana, May 1, 1997.
126. L.J. Suggs\*, E.Y. Kao, R.S. Krishnan, C.W. Patrick, and A.G. Mikos, "Evaluation of a Biodegradable Block Copolymer for Use as a Vascular Implant," 23rd Annual Meeting of the Society For Biomaterials, New Orleans, Louisiana, May 1, 1997.
127. M.S. Widmer\*, A.C. Jen, R.D. Bostrom, and A.G. Mikos, "Cell Seeding in Three Dimensional Scaffolds," 23rd Annual Meeting of the Society For Biomaterials, New Orleans, Louisiana, May 1, 1997.
128. R.L. Cleek\*, A.A. Rege, L.A. Denner, S.G. Eskin, and A.G. Mikos, "Inhibition of Smooth Muscle Cell Growth In Vitro by an Antisense Oligodeoxynucleotide Released from Poly(DL-Lactic-co-Glycolic Acid) Microparticles," 23rd Annual Meeting of the Society For Biomaterials, New Orleans, Louisiana, May 2, 1997.
129. L. Lu\*, A.G. Mikos, and C.A. Garcia, "Morphological and Structural Properties of a Human RPE Cell Line Cultured on Biodegradable Polymer Substrates," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, May 12, 1997.
130. M.S. Widmer\*, G.R.D. Evans, K. Brandt, T. Savel, C.W. Patrick, Jr., and A.G. Mikos, "Porous Biodegradable Polymer Scaffolds for Nerve Regeneration," ASME Summer Bioengineering Conference, Sunriver, Oregon, June 14, 1997.
131. S.J. Peter, J.A. Nolley, D.B. Kim, M.S. Widmer, P.S. Engel, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos\*, "Curing Characteristics and Mechanical Properties of a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," ASME Summer Bioengineering Conference, Sunriver, Oregon, June 14, 1997.
132. R.L. Cleek, R.J. Bjercke, A.A. Rege, S.G. Eskin, and A.G. Mikos\*, "Biodegradable Polymeric Carriers for a bFGF Antibody for Cardiovascular Application," 24th International Symposium on Controlled Release of Bioactive Materials, Stockholm, Sweden, June 18, 1997.
133. L. Lu\*, C.A. Garcia, and A.G. Mikos, "Retinal Pigment Epithelium Tissue Engineering," 11th World Congress of the International Society for Artificial Organs, Providence, Rhode Island, July 1, 1997.
134. A.G. Mikos\*, "Polymeric Delivery Systems for Antisense Oligonucleotides," The Whitaker Foundation Biomedical Engineering Research Conference, Snowbird, Utah, July 12, 1997.
135. A.G. Mikos\*, S.L. Riley, R.C. Thomson, G.M. Crane, A. Gurlek, M.J. Miller, A.W. Yasko, and M.J. Yaszemski, "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," 1st Smith & Nephew International Symposium on Advances in Tissue Engineering and Biomaterials, York, England, July 21, 1997.
136. G.M. Crane, M. Smith, A. Gurlek, A.K.M. Khoo, M.J. Miller, and A.G. Mikos\*, "Rat Cranial Defect Repair by Marrow Stromal Osteoblast Transplantation," 1st Smith & Nephew International Symposium on Advances in Tissue Engineering and Biomaterials, York, England, July 21, 1997.

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137. K. Brandt, G.R.D. Evans\*, M. Widmer, T. Savel, A. Gurlek, R. Lohman, A. Nabawi, J. Williams, C. Patrick, and A.G. Mikos, "Tissue Engineered Nerve Using Biodegradable PLGA Conduits," 1st Smith & Nephew International Symposium on Advances in Tissue Engineering and Biomaterials, York, England, July 21, 1997.
138. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos\*, "Polymer Concepts Regarding Tissue Engineering," Portland Bone Symposium, Portland, Oregon, August 8, 1997.
139. A.G. Mikos\*, "Biodegradable Polymers for Tissue Engineering," Medical Textiles Conference, Clemson University, Clemson, South Carolina, September 9, 1997.
140. E. Yuksel\*, R. Cleek, J. Jensen, A. Weinfeld, A.G. Mikos, S. Shenaq, and M. Spira, "Delivery of Insulin, IGF-1, BFGF and VEGF in PLGA/PEG Microparticles to Augment Adiposofascial Flaps," Annual BMES Fall Meeting, San Diego, California, October 3, 1997.
141. L.J. Suggs\*, R.S. Krishnan, S.J. Peter, and A.G. Mikos, "*In Vitro* Degradation of a Crosslinked Poly(Ethylene Glycol) Copolyester," Annual BMES Fall Meeting, San Diego, California, October 3, 1997.
142. M.J. Miller\*, A. Khoo, R.C. Thomson, J.C. Lemon, A. Gurlek, and A.G. Mikos, "Vascularized Tissue Scaffold Apparatus for Guided Tissue Growth," Annual BMES Fall Meeting, San Diego, California, October 4, 1997.
143. G.R.D. Evans\*, K. Brandt, M. Widmer, T. Savel, A. Gurlek, R. Lohman, A. Nawabi, J. Williams, C. Patrick, and A.G. Mikos, "Tissue Engineered Nerve Conduits: Their Use in Peripheral Nerve Surgery," Annual BMES Fall Meeting, San Diego, California, October 4, 1997.
144. S.J. Peter\*, D.J. Kim, and A.G. Mikos, "Three-Dimensional Bone Formation in Injectable, Biodegradable Polymer Scaffolds," Annual BMES Fall Meeting, San Diego, California, October 4, 1997.
145. A.G. Mikos\*, "*In Situ* Polymerizable Biodegradable Scaffolds for Tissue Engineering," 21st Annual Symposium of Macromolecular Science and Engineering Center, The University of Michigan, Ann Arbor, Michigan, October 23, 1997.
146. R.G. Payne\*, S.A. Sivaram, J.E. Babensee, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "Marrow Stromal Osteoblast Encapsulation and Seeding onto a Crosslinking Biodegradable Polymer," Annual AIChE Meeting, Los Angeles, California, November 17, 1997.
147. E. Yuksel\*, R. Cleek, A.B. Weinfeld, J. Waugh, J. Jensen, A.G. Mikos, S. Shenaq, and M. Spira, "Effects of Lipogenic Factors on Survival Rates of Fat Grafts," Annual AIChE Meeting, Los Angeles, California, November 18, 1997.
148. E. Yuksel\*, B. Ray, M. Widmer, A.B. Weinfeld, J. Waugh, J. Jensen, R. Cleek, A.G. Mikos, S. Shenaq, and M. Spira, "Prefabrication of Breast Utilizing Biodegradable PLGA Polymers: Angiogenic and Lipogenic Factors," Annual AIChE Meeting, Los Angeles, California, November 18, 1997.
149. R.C. Thomson, M.J. Yaszemski\*, J.M. Powers, and A.G. Mikos, "Hydroxyapatite Fiber Reinforced Poly(a-Hydroxy Ester) Foams for Bone Regeneration," Annual AIChE Meeting, Los Angeles, California, November 19, 1997.
150. D.J. Kim\*, S.J. Peter, A.W. Yasko, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "TGF- $\beta$  Induced Osteoblastic Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," Annual AIChE Meeting, Los Angeles, California, November 19, 1997.

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151. E. Yuksel\*, M. Widmer, A.B. Weinfeld, M. Kattash, J. Waugh, J. Jensen, A.G. Mikos, and S. Shenaq, "Generation of Shaped Cartilage Using Perichondrial and Periosteal Flaps Activated by Growth Factor-Incorporated Biodegradable Scaffolds," Annual AICHE Meeting, Los Angeles, California, November 19, 1997.
152. A.G. Mikos\*, "Materials and Scaffolds for Building Three Dimensional Tissues *In Vitro*," Workshop on Tissue Based Biosensors, Defense Advanced Research Projects Agency, George Washington University Campus, Ashburn, Virginia, December 10, 1997.
153. A.G. Mikos\*, "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Bionic Design Workshop: Reconstruction of Biological Functions and Structures, National Institute for Advanced Interdisciplinary Research, Tsukuba, Japan, January 20, 1998.
154. G. Liu\*, S.G. Eskin, and A.G. Mikos, "Inhibitory Effects of b3 Integrin Antibody on the Migration of Vascular Adventitial Fibroblasts Induced by Basic Fibroblast Growth Factor," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
155. E. Yuksel\*, M. Widmer, R. Cleek, A. Weinfeld, M. Kattash, A.G. Mikos, S. Shenaq, and M. Spira, "Vascularized Perichondrial Flaps for *In Vivo* Tissue Engineering in Auricular Reconstruction: Two Rabbit Models," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
156. A. Weinfeld\*, E. Yuksel, S. Wamsley, J. Jensen, B. Boutros, R. Cleek, A.G. Mikos, S. Shenaq, and M. Spira, "Improvement of Free Fat Graft Survival: *In Vivo* Long-Term Delivery of IGF and Insulin Using PLGA/PEG Microspheres," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
157. L.J. Suggs\*, C.A. Garcia, and A.G. Mikos, "An Injectable, Biodegradable PEG Copolyester as a Carrier for Endothelial Cells," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
158. E. Yuksel\*, A. Jedrysiak, A. Weinfeld, A.G. Mikos, M. Spira, and S. Shenaq, "A Novel Fascio-Cutaneous Island Flap Model in the Rat for the Quantitative Analysis of Neo-Angiogenesis," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
159. S.J. Peter\*, C.R. Liang, D.J. Kim, M.S. Widmer, and A.G. Mikos, "Osteoblastic Phenotype of Marrow Stromal Cells Cultured in the Presence of Dexamethasone," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
160. E. Yuksel\*, R. Ray, S. Wamsley, A. Weinfeld, J. Waugh, M. Widmer, R. Cleek, A.G. Mikos, S. Shenaq, and M. Spira, "Soft Tissue Engineering *In Vivo* with PLGA Scaffolds and PLGA/PEG Microsphere Long Term Delivery of Lipogenic Factors," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 8, 1998.
161. E. Yuksel\*, A.B. Weinfeld, J. Waugh, R. Cleek, A.G. Mikos, M. Spira, and S. Shenaq, "*In Vivo* Engineering of Vascularized Fat Flaps: Long-Term Delivery of Angiogenic Factors for Axially Neo-Vascularized Tissues," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 8, 1998.
162. G.R.D. Evans\*, K. Brandt, M.S. Widmer, R.K. Meszlenyi, J. Hodges, P.K. Gupta, J. Williams, A. Gürlek, R. Lohman, C.W. Patrick, and A.G. Mikos, "Poly(L-Lactic Acid) (PLLA) Biodegradable Nerve Scaffolds for Peripheral Nerve Regeneration," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 2, 1998.

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163. M.J. Miller\*, A. Khoo, R.C. Thomson, J.C. Lemon, A. Gürlek, and A.G. Mikos, "In Vivo Fabrication of Vascularized Tissue Scaffolds," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 2, 1998.
164. C.R. Liang\*, S.J. Peter, D.J. Kim, M.S. Widmer, and A.G. Mikos, "Osteoblastic Phenotype of Marrow Stromal Cells Cultured in the Presence of Dexamethasone," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 2, 1998.
165. G. Liu\*, S.G. Eskin, and A.G. Mikos, "Basic Fibroblast Growth Factor-Stimulated Adventitial Fibroblast Migration Due to  $\alpha_3$  Integrin Regulation," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 2, 1998.
166. W.T. Godbey\*, K.K. Wu, and A.G. Mikos, "Size Matters: Molecular Weight Affects the Efficiency of Poly(Ethylenimine) as a Gene Delivery Vehicle," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 3, 1998.
167. S.J. Peter\*, P. Kim, A.W. Yasko, and A.G. Mikos, "Modulation of Handling Characteristics and Mechanical Properties of an *In Situ* Polymerizable Orthopaedic Biomaterial," MRS Spring Meeting, San Francisco, California, April 14, 1998.
168. G. Liu\*, S.G. Eskin, and A.G. Mikos, "Effects of Growth Factors on the Migration and Proliferation of Vascular Adventitial Fibroblasts," Experimental Biology 98, San Francisco, California, April 19, 1998.
169. L.J. Suggs\* and A.G. Mikos, "In Vitro Thrombogenicity of an Injectable, Biodegradable PEG Copolyester," 24th Annual Meeting of the Society For Biomaterials, San Diego, California, April 23, 1998.
170. M.S. Widmer, P.K. Gupta, L. Lu\*, G.R.D. Evans, K. Brandt, T. Savel, A. Gurlek, C.W. Patrick, Jr., and A.G. Mikos, "Manufacture and Characterization of Porous Biodegradable Polymer Conduits for Peripheral Nerve Regeneration," 24th Annual Meeting of the Society For Biomaterials, San Diego, California, April 23, 1998.
171. S.J. Peter\*, S.T. Miller, G. Zhu, A.W. Yasko, and A.G. Mikos, "In Vivo Degradation of a Poly(Propylene Fumarate)/ $\beta$ -Tricalcium Phosphate Injectable Composite Scaffold," 24th Annual Meeting of the Society For Biomaterials, San Diego, California, April 24, 1998.
172. G.R.D. Evans, K. Brandt, M.S. Widmer, J. Hodges, P.K. Gupta, J. Williams, A. Gürlek, R. Lohman, C.W. Patrick, and A.G. Mikos\*, "Poly(L-Lactic Acid) (PLLA) Biodegradable Nerve Scaffolds: Their Utilization in Peripheral Nerve Surgery," 24th Annual Meeting of the Society For Biomaterials, San Diego, California, April 24, 1998.
173. L. Lu\*, R. Kapur, C.A. Garcia, and A.G. Mikos, "Morphological Study of a Human RPE Cell Line Cultured on Patterned Biodegradable Polymer Substrates," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, May 10, 1998.
174. M.J. Yaszemski\*, D. Kim, S.J. Peter, A.W. Yasko, M.J. Miller, and A.G. Mikos, "TGF- $\beta$  Induced Osteoblastic Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," Annual Meeting of the American Orthopaedic Association, Asheville, North Carolina, June 3, 1998.
175. A.G. Mikos\*, "Biodegradable Polymers for Tissue Engineering," 3rd International Business Communications Industry Symposium on Advancements in Tissue Engineering, Boston, Massachusetts, June 9, 1998.

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176. A. Göpferich\*, S.J. Peter, C. Vergani, F.V. Burkersroda, and A.G. Mikos, "Biodegradable Block-Copolymers as Drug and Cell Carriers," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 23, 1998.
177. W.T. Godbey\*, K.K. Wu, and A.G. Mikos, "Size Matters: Molecular Weight Affects the Efficiency of Poly(Ethylenimine) as a Gene Delivery Vehicle," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 24, 1998.
178. L. Lu\*, C.A. Garcia, and A.G. Mikos, "Tissue Engineering of Retinal Pigment Epithelium Using Thin Poly(DL-Lactic-co-Glycolic Acid) Films," Annual BMES Fall Meeting, Cleveland, Ohio, October 12, 1998.
179. S.J. Peter, C.R. Liang, D.J. Kim, M.S. Widmer, and A.G. Mikos\*, "Engineering the Osteoblastic Phenotype of Marrow-Derived Cells Using Cell Culture Supplements," Annual BMES Fall Meeting, Cleveland, Ohio, October 12, 1998.
180. E. Behraves, P.S. Engel, A.W. Yasko, and A.G. Mikos\*, "Synthetic Biodegradable Polymers for Orthopaedic Applications," Association of Bone and Joint Surgeons Orthopaedic Tissue Engineering Workshop, Tampa, Florida, November 13, 1998.
181. G. Liu\*, S.G. Eskin, and A.G. Mikos, "Basic FGF Directed Migration of Vascular Adventitial Fibroblasts Via Integrin Regulation," Annual AIChE Meeting, Miami Beach, Florida, November 16, 1998.
182. J.E. Babensee\*, L.V. McIntire, A.G. Mikos, and C.W. Smith, "Leukocyte Response to Biomaterial Implantation - Role of Complement Using Mouse Models," Annual AIChE Meeting, Miami Beach, Florida, November 17, 1998.
183. L. Lu\*, C.A. Garcia, and A.G. Mikos, "In Vitro Degradation of Thin Poly(DL-Lactic-co-Glycolic Acid) Films," Annual AIChE Meeting, Miami Beach, Florida, November 18, 1998.
184. L. Lu\*, R. Bizios, C.A. Garcia, A.G. Mikos, and L.C. Kam, "Human Retinal Pigment Epithelium Cell Culture on Patterned Surfaces," Annual AIChE Meeting, Miami Beach, Florida, November 18, 1998.
185. A.S. Goldstein\*, V. Liu, and A.G. Mikos, "Enhanced Growth of Osteoblastic Cells in Porous Scaffolds by Forced Convection," Annual AIChE Meeting, Miami Beach, Florida, November 18, 1998.
186. M.C. Wake, P.D. Gerecht, L. Lu, and A.G. Mikos\*, "Biodegradable Particulate Polymer Effects on Marrow Stromal Osteoblasts *In Vitro*," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
187. M.B. Schulz\*, A. Goepferich, A.S. Goldstein, and A.G. Mikos, "PEG-PLA Diblock Copolymers for Tissue Engineering of Bone," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
188. S. Katz, G.R.D. Evans, K. Brandt, P. Chauvin, L. Otto, R. Meszlenyi, B. Wang, T. King, A.G. Mikos, and C. Patrick\*, "Bioactive, Poly(L-Lactic Acid) Conduits for Peripheral Nerve Regeneration," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
189. G.N. Stamatias\*, L. Lu, and A.G. Mikos, "Transforming Growth Factor- $\beta$ 1 (TGF- $\beta$ 1) Release Studies from Biodegradable Poly(Lactic-co-Glycolic Acid)/Poly(Ethylene Glycol) (PLGA/PEG) Microparticles," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.

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190. A.S. Goldstein\*, G. Zhu, and A.G. Mikos, "Enhancement of Cellularity in Biodegradable Polymer Foams *In Vitro*," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
191. S.-L. He\* and A.G. Mikos, "Injectable, *In Situ* Crosslinkable Biodegradable Orthopaedic Scaffolds Based on Poly(Propylene Fumarate) and Degradable Crosslinking Agents," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
192. R.G. Payne\*, S.A. Sivaram, J.E. Babensee, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Temporary Encapsulation of Rat Marrow Osteoblasts in Gelatin Microspheres," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
193. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos\*, "New Strategies for Bone Tissue Engineering," 11th International Workshop on Calcified Tissues, Eilat, Israel, February 11, 1999.
194. G.R.D. Evans\*, K. Brandt, S. Katz, P. Chauvin, L. Otto, M. Bogle, R.K. Meszlenyi, B. Wang, T. King, A.G. Mikos, and C.W. Patrick, "The Utilization of Schwann Cells in Poly(L-Lactic Acid) Conduits for Nerve Regeneration," 17th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 1999.
195. W.T. Godbey\*, K.K. Wu, G.J. Hirasaki, and A.G. Mikos, "Improved Packing of Poly(Ethylenimine)/DNA Complexes Increases Transfection Efficiency," 17th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 12, 1999.
196. C.G. Ambrose\*, G.R. Gogola, T. Clyburn, A. Peng, and A.G. Mikos, "PLGA/PEG Microspheres as an Antibiotic Delivery System for Osteomyelitis," 17th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 12, 1999.
197. L. Lu, S.J. Peter, G.N. Stamatas, and A.G. Mikos\*, "Polymeric Delivery Vehicles for Bone Growth Factors," National ACS Meeting, Anaheim, California, March 21, 1999.
198. L.J. Suggs, M.J. Yaszemski, and A.G. Mikos\*, "Development of Poly(Propylene Fumarate-co-Ethylene Glycol): An Injectable, Biodegradable Cardiovascular Implant," National ACS Meeting, Anaheim, California, March 22, 1999.
199. K.J.L. Burg\*, A.G. Mikos, R.J. Beiler, C.R. Culberson, K.G. Greene, A.B. Loeb sack, W.D. Roland, S. Wyatt, C.R. Halberstadt, W.D. Holder, Jr., and T.C. Burg, "Particulate Selection and Importance to Cell Adhesion in Solvent-Cast, Particulate-Leached Polymeric Constructs," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, April 29, 1999.
200. S.-L. He\*, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "Development of a Biodegradable Bone Cement Based on Poly(Propylene Fumarate) and a Macromer," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, April 29, 1999.
201. J.E. Babensee\*, L.V. McIntire, A.G. Mikos, and C.W. Smith, "The Role of Complement in the Leukocyte Response to Biomaterial Implantation," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, April 29, 1999.
202. L. Lu\*, G.N. Stamatas, and A.G. Mikos, "Delivery of Transforming Growth Factor- $\beta$ 1 from Poly(DL-Lactic-co-Glycolic Acid)/Poly(Ethylene Glycol) Microparticles," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, April 29, 1999.
203. L.J. Suggs\*, M.S. Shive, C.A. Garcia, J.M. Anderson, and A.G. Mikos, "*In Vitro* Cytotoxicity and *In Vivo* Biocompatibility of Poly(Propylene Fumarate-co-Ethylene

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- Glycol) Hydrogels,” 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, May 2, 1999.
204. Q. Liu\*, S.-L. He, R. Bahulekar, and A.G. Mikos, “Porous Anionic Hydrogels Based on sIPNs of Poly(2-Hydroxyethyl Methacrylate) and Poly(Acrylic Acid),” 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, May 2, 1999.
  205. A.G. Mikos\*, “Bone Repair by Tissue Engineering,” Congress on In Vitro Biology, New Orleans, Louisiana, June 7, 1999.
  206. L. Lu\*, L.C. Kam, M. Hasenbein, R. Bizios, and A.G. Mikos, “Human Retinal Pigment Epithelium Cell Culture on Patterned Surfaces,” ASME Summer Bioengineering Conference, Big Sky, Montana, June 17, 1999.
  207. J.B. Oldham\*, B.D. Porter, T.-S. Tan, H. Brisby, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, “Influence of Changes in Experimental Parameters on Size of PLGA Microspheres,” ASME Summer Bioengineering Conference, Big Sky, Montana, June 20, 1999.
  208. J.B. Oldham\*, B.D. Porter, T.E. Hefferan, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, “Biologic Activity of rhBMP-2 Following Release from PLGA Microspheres,” ASME Summer Bioengineering Conference, Big Sky, Montana, June 20, 1999.
  209. B.D. Porter\*, J.B. Oldham, R.G. Payne, K.-N. An, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, “Mechanical Properties of a Biodegradable Bone Regeneration Scaffold,” ASME Summer Bioengineering Conference, Big Sky, Montana, June 20, 1999.
  210. W.T. Godbey\*, K.K. Wu, G.J. Hirasaki, and A.G. Mikos, “Improved Packing of Poly(Ethylenimine)/DNA Complexes Increases Transfection Efficiency,” 26th International Symposium on Controlled Release of Bioactive Materials, Boston, Massachusetts, June 22, 1999.
  211. W.T. Godbey\*, K.K. Wu, and A.G. Mikos, “Tracking the Intracellular Path of PEI/DNA Complexes for Gene Delivery,” 26th International Symposium on Controlled Release of Bioactive Materials, Boston, Massachusetts, June 23, 1999.
  212. A.G. Mikos\*, “Polymers as Drug Delivery Vehicles for Tissue Growth,” Gordon Research Conference on Tissue Engineering, Biomaterials, and Biocompatibility, Plymouth, New Hampshire, July 19, 1999.
  213. W.T. Godbey, K.K. Wu, and A.G. Mikos\*, “Synthetic Polymers for Non-Viral Gene Delivery,” 4th Asia-Pacific Conference on Medical and Biological Engineering, Seoul, Korea, September 13, 1999.
  214. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos\*, “Polymer Concepts in Tissue Engineering,” Academy of Dental Materials Annual Meeting, Tempe, Arizona, October 28, 1999.
  215. E. Behravesch\* and A.G. Mikos, “Adhesion and Differentiation of Marrow Stromal Osteoblasts on Synthetic Biodegradable Hydrogels,” Annual AIChE Meeting, Dallas, Texas, November 3, 1999.
  216. R. Bizios, L. Lu\*, A.G. Mikos, K. Nyalakonda, and A. Göpferich, “Novel Micropatterned Surfaces Fabricated from Synthetic Biodegradable Polymers for Retinal Pigment Epithelium Cell Culture,” Annual AIChE Meeting, Dallas, Texas, November 3, 1999.
  217. W.T. Godbey\*, K.K. Wu, and A.G. Mikos, “Poly(Ethylenimine) Affords Two Types of Protection Against DNA Degradation,” Annual AIChE Meeting, Dallas, Texas, November 3, 1999.



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218. M.A. Barry, J.S. Blum\*, and A.G. Mikos, "Gene Therapy for Bone Tissue Engineering," Annual AIChE Meeting, Dallas, Texas, November 3, 1999.
219. A.G. Mikos and A.K. Shung\*, "Cell Adhesion on Biodegradable Copolymer Hydrogels for Use in Cardiovascular Applications," Annual AIChE Meeting, Dallas, Texas, November 5, 1999.
220. A.I. Caplan, A.S. Goldstein\*, M. Gustin, and A.G. Mikos, "Osteoblastic Cell Growth and Function in PLGA/Ceramic Foams," Annual AIChE Meeting, Dallas, Texas, November 5, 1999.
221. A.S. Goldstein\*, T.M. Juarez, C.D. Helmke, M.C. Gustin, and A.G. Mikos, "Effect of Convection on Osteoblastic Cell Proliferation and Function in Porous Scaffolds," Second BioValley Tissue Engineering Symposium, Freiburg, Germany, November 26, 1999.
222. J.S. Temenoff and A.G. Mikos\*, "Bone Tissue Engineering Using Synthetic Biodegradable Polymer Scaffolds," Bone Engineering Workshop, Toronto, Canada, December 2, 1999.
223. W.T. Godbey and A.G. Mikos\*, "Recent Progress in Poly(Ethylenimine)-Mediated Gene Delivery," 2000 Research Initiatives Conference in Vascular Disease on the Biology of Vascular Interventions-Minimally Invasive Approaches to Vascular Disease, Bethesda, Maryland, February 18, 2000.
224. E. Behravesh\*, T.M. Juarez, and A.G. Mikos, "Marrow Stromal Osteoblast Adhesion on Poly(Propylene Fumarate) Based Hydrogels," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 10, 2000.
225. S. Jo\* and A.G. Mikos, "Modification of Poly(Ethylene Glycol)-Tethered Poly(Propylene-co-Fumarate) with RGD Peptide," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 10, 2000.
226. A.K. Shung\* and A.G. Mikos, "Cell Adhesion on Biodegradable Copolymer Hydrogels for Cardiovascular Applications," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 10, 2000.
227. M.D. Timmer\*, S. He, A.G. Mikos, and C.G. Ambrose, "Investigation of a Poly(Propylene Fumarate)-Based Polymer for Bioresorbable Interbody Fusion Cage," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 2000.
228. J.S. Blum\*, M.A. Barry, and A.G. Mikos, "Gene Therapy in Bone Tissue Engineering," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 2000.
229. W.T. Godbey\*, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine)-Mediated Transfection: A New Paradigm for Non-Viral Gene Delivery," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 2000.
230. G. Gogola\*, C. Ambrose, A. Peng, and A.G. Mikos, "PLGA/PEG Microspheres as an Antibiotic Delivery System," Annual Meeting of Orthopaedic Research Society, Orlando, Florida, March 12, 2000.
231. A.G. Mikos\*, "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds" (Alessandro Codivilla Lecture), Association for the Study and Application of the Methods of Ilizarov Annual Scientific Meeting, Orlando, Florida, March 13, 2000.
232. J.S. Temenoff and A.G. Mikos\*, "Bone Tissue Engineering Using Biodegradable Polymer Scaffolds," Annual Meeting of Orthopaedic Research Society and American Academy of Orthopaedic Surgeons, Orlando, Florida, March 15, 2000.

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233. W.T. Godbey and A.G. Mikos\*, "Poly(Ethylenimine) as a Gene Delivery Vehicle and Its Potential for Tissue Engineering," European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands, April 13, 2000.
234. A.G. Mikos\*, "Engineering of Bone," Croucher Advanced Study Institute on Engineering of Musculoskeletal Tissues, Kowloon, Hong Kong, April 16, 2000.
235. A.G. Mikos\*, "Biodegradable Polymer Scaffolds for Musculoskeletal Tissue Engineering," Croucher Advanced Study Institute on Engineering of Musculoskeletal Tissues, Kowloon, Hong Kong, April 17, 2000.
236. J.S. Temenoff and A.G. Mikos\*, "Biocompatibility Issues with Biodegradable Polymers," 6th World Biomaterials Congress, Kamuela, Hawaii, May 16, 2000.
237. S. He\*, M.J. Yaszemski, P.S. Engel, and A.G. Mikos, "Injectable, *In Situ* Crosslinkable, Biodegradable Poly(Propylene Fumarate) Networks for Orthopaedic Tissue Engineering," 6th World Biomaterials Congress, Kamuela, Hawaii, May 18, 2000.
238. W.T. Godbey\*, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Transfection with Poly(Ethylenimine) Is More Like Hitting Cells with a Bullet than a Sponge," 6th World Biomaterials Congress, Kamuela, Hawaii, May 18, 2000.
239. J.E. Babensee\*, L.V. McIntire, A.G. Mikos, and J. Rodgers, "Exogenous Antigen-Specific Immune Response Upon Biomaterial Contact," 6th World Biomaterials Congress, Kamuela, Hawaii, May 19, 2000.
240. S. Jo\*, A.K. Shung, H. Shin, and A.G. Mikos, "Synthesis and Characterization of a Novel Poly(Ethylene Glycol) Macromer Based on Fumaric Acid," 6th World Biomaterials Congress, Kamuela, Hawaii, May 20, 2000.
241. S. Jo\* and A.G. Mikos, "Modification of a Novel Poly(Ethylene Glycol) Macromer Based on Fumaric Acid with GRGD Peptide," 6th World Biomaterials Congress, Kamuela, Hawaii, May 20, 2000.
242. J. Tessmar\*, A.G. Mikos, and A. Göpferich, "A New Biodegradable Polymer for the Modification of Surfaces: H<sub>2</sub>N-Poly(Ethylene Glycol)-Poly(D,L-Lactic Acid)," 6th World Biomaterials Congress, Kamuela, Hawaii, May 20, 2000.
243. R. Bahulekar\*, Q. Liu, and A.G. Mikos, "Synthesis and Characterization of Hydrogels Containing Sugar-Methacrylate Monomer," 6th World Biomaterials Congress, Kamuela, Hawaii, May 20, 2000.
244. J.S. Blum\*, E.A. Davis, R.H. Li, M.A. Barry, and A.G. Mikos, "A New *In Vitro* Assay for the Detection of rhBMP-2 Produced by Genetically Modified Cells," 3rd International Conference on Bone Morphogenetic Proteins, Lake Tahoe, California, June 9, 2000.
245. L. Lu, S.J. Peter, G.N. Stamatias, D.J. Kim, M.J. Miller, M.J. Yaszemski, and A.G. Mikos\*, "Controlled Release of TGF- $\beta$ 1 from Biodegradable Polymer Microparticles and Its Effects on Marrow Stromal Osteoblast Function," 3rd International Conference on Bone Morphogenetic Proteins, Lake Tahoe, California, June 10, 2000.
246. W.T. Godbey\*, K.K. Wu, and A.G. Mikos, "Non-Viral Gene Delivery Affects Endothelial Cell Function and Viability," 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 11, 2000.
247. W.T. Godbey\*, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine)-Mediated Transfection: A New Paradigm for Gene Delivery," 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 11, 2000.

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248. J. Tessmar\*, A.G. Mikos, and A. Göpferich, "New Biodegradable Polymers for the Development of Biomimetic Biomaterials," 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 12, 2000.
249. A.G. Mikos\*, "Present and Future Status of Tissue/Organ Bioengineering: An Approach to the 21st Century Medicine," 16th Annual Meeting of Japan Society of Drug Delivery System, Akita, Japan, July 29, 2000.
250. W.T. Godbey and A.G. Mikos\*, "Non-Viral Gene Delivery Vectors," International Symposium on Biomaterials and Drug Delivery Systems, Cheju Island, Korea, August 22, 2000.
251. J.S. Temenoff and A.G. Mikos\*, "Injectable Biodegradable Polymers for Tissue Engineering," Surfaces in Biomaterials, Scottsdale, Arizona, August 31, 2000.
252. A.G. Mikos\*, "Engineering Human Tissue: Challenges and Opportunities," 9th Research Council Meeting of Japan Society of Plastic and Reconstructive Surgery, Nagoya, Japan, October 5, 2000.
253. A.G. Mikos\*, "Fabrication of Biodegradable Polymer Scaffolds for Tissue Engineering," 9th Research Council Meeting of Japan Society of Plastic and Reconstructive Surgery, Satellite Symposium on Regeneration Medicine, Nagoya, Japan, October 6, 2000.
254. A.G. Mikos\*, "Biosmart Polymers," Council for the Advancement of Science Writing Annual Briefing, Houston, Texas, October 30, 2000.
255. J.P. Fisher\*, T.A. Holland, P.S. Engel, and A.G. Mikos, "Preparation and Characterization of Photocrosslinked Poly(Propylene Fumarate) for Orthopaedic Applications," Annual AIChE Meeting, Los Angeles, California, November 13, 2000.
256. A.G. Mikos\*, "Engineering Human Tissue," Annual AIChE Meeting, Los Angeles, California, November 14, 2000.
257. V.I. Sikavitsas, G.N. Bancroft, and A.G. Mikos\*, "Bioreactor Design for Three-Dimensional Cell-Polymer Constructs in Bone Tissue Engineering," 5th International Symposium on Tissue Engineering for Therapeutic Use, Tsukuba, Japan, November 17, 2000.
258. V.I. Sikavitsas\*, G.N. Bancroft, and A.G. Mikos, "Formation of Three Dimensional Cell-Polymer Constructs in Bioreactors for Bone Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 27, 2000.
259. R.G. Payne\*, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Temporary Encapsulation of Rat Marrow Osteoblasts in Gelatin Microspheres for Bone Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 27, 2000.
260. A.K. Shung\* and A.G. Mikos, "Effects of Block Lengths and Initial Water Content on the Swelling and Degradative Characteristics of an Injectable Poly(Propylene Fumarate-co-Ethylene Glycol) Block Copolymer Hydrogel," MRS Fall Meeting, Boston, Massachusetts, November 28, 2000.
261. E.L. Hedberg\* and A.G. Mikos, "Controlled Release of Bone Growth Factors from Injectable, Biodegradable Polymer Scaffolds for Bone Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 28, 2000.
262. J.P. Fisher, T.A. Holland\*, D. Dean, and A.G. Mikos, "Photocrosslinked Poly(Propylene Fumarate) Scaffolds for Orthopedic Applications," MRS Fall Meeting, Boston, Massachusetts, November 28, 2000.

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263. E. Behraves\* and A.G. Mikos, "Fabrication of an Injectable Porous Synthetic Biodegradable Hydrogel for Dental Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 28, 2000.
264. H. Shin\*, S. Jo, and A.G. Mikos, "Synthetic Biodegradable Polymer Networks Modulating Marrow Stromal Osteoblast Function," MRS Fall Meeting, Boston, Massachusetts, November 29, 2000.
265. J.S. Temenoff\*, S. Jo, H.-S. Shin, K.A. Athanasiou, R.G. LeBaron, and A.G. Mikos, "Novel Injectable Poly(Ethylene Glycol) Fumarate Hydrogels for Cartilage Tissue Engineering," 3rd Bi-Annual TES Meeting, Orlando, Florida, December 1, 2000.
266. G.N. Bancroft\*, V.I. Sikavitsas, and A.G. Mikos, "Three-Dimensional Culture of Cell-Polymer Constructs in Bioreactors for Bone Tissue Engineering," 3rd Bi-Annual TES Meeting, Orlando, Florida, December 1, 2000.
267. J.P. Fisher\*, J.W.M. Vehof, D. Dean, J.A. Jansen, and A.G. Mikos, "The *In Vivo* Biocompatibility of Poly(Propylene Fumarate) Scaffolds," 19th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 9, 2001.
268. E.L. Hedberg\* and A.G. Mikos, "Controlled Release of Osteoinductive Factors from Injectable, Biodegradable Polymeric Composites," 19th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 9, 2001.
269. J.S. Blum\*, R.H. Li, A.G. Mikos, and M.A. Barry, "An Optimized Method for the Chemiluminescent Detection of Alkaline Phosphatase Levels during Osteodifferentiation by Bone Morphogenetic Protein 2," 19th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 9, 2001.
270. A.G. Mikos\*, "Injectable Biodegradable Polymers for Orthopaedic Tissue Engineering," Engineering Tissue Growth International Conference and Exposition, Pittsburgh, Pennsylvania, March 27, 2001.
271. A.G. Mikos\*, "Engineering Bone Tissue," 2001 Human Genome Odyssey Conference: The Science, Business, Law and Ethics of Engineering Human Life, Akron, Ohio, April 6, 2001.
272. G.N. Bancroft, V.I. Sikavitsas\*, and A.G. Mikos, "Three-Dimensional Culture of Cell-Polymer Constructs in Bioreactors for Bone Tissue Engineering," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 26, 2001.
273. M.S. Wolfe\*, D. Dean, J.E. Chen, S. Han, C. Rimnac, S.A. Goldman, A.I. Caplan, L. Solchaga, and A.G. Mikos, "*In Vitro* Degradation of Poly(Propylene Fumarate)/ $\beta$ -Tricalcium Phosphate Scaffolds," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 26, 2001.
274. J.S. Temenoff\*, R.G. LeBaron, K.A. Athanasiou, and A.G. Mikos, "Novel Laminated PEG-Fumarate Hydrogels for Tissue Engineering of Articular Cartilage," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 27, 2001.
275. S. He\*, J. Ulrich, R.G. Valenzuela, M. Zobitz, K.-N. An, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Mechanical Properties of Biodegradable Poly(Propylene Fumarate)-Bone Fiber Composites During the Degradation Process," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 27, 2001.
276. M.D. Timmer\*, S. He, C.G. Ambrose, and A.G. Mikos, "Mechanical Properties of Photo-Initiated, Biodegradable Polymer Networks for Prefabricated Orthopaedic Scaffolds," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 28, 2001.

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277. A.G. Mikos\*, "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering" (Clemson Award for Contributions to the Literature Lecture), 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 29, 2001.
278. J. Tessmar\*, A.G. Mikos, and A. Göpferich, "Towards the Covalent Attachment of Insulin to Biodegradable Diblock Copolymers," 28th International Symposium on Controlled Release of Bioactive Materials, San Diego, California, June 25, 2001.
279. A.G. Mikos\*, S. Jo, H. Shin, and J.S. Temenoff, "Injectable Gels for Dental Tissue Engineering," 4th Annual Bioengineering Consortium Symposium on Regenerative Medicine: Growing Tissues and Organs, National Institutes of Health, Bethesda, Maryland, June 26, 2001.
280. K. Tanahashi and A.G. Mikos, "Cell Adhesion on Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogel," Annual BMES Fall Meeting, Durham, North Carolina, October 5, 2001.
281. J.P. Fisher, J.W.M. Vehof, D. Dean, J.A. Jansen, and A.G. Mikos, "An In Vivo Study of Poly(Propylene Fumarate) Scaffolds: Tissue Response and Bone Formation," Annual BMES Fall Meeting, Durham, North Carolina, October 5, 2001.
282. V.I. Sikavitsas\* and A.G. Mikos, "Polymers as Vehicles for Releasing Bioactive Agents and Guiding Tissue Growth," NATO Advanced Study Institute on Polymer Based Systems on Tissue Engineering, Replacement and Regeneration, Alvor, Portugal, October 23, 2001.
283. V.I. Sikavitsas\* and A.G. Mikos, "Polymeric Constructs on Tissue Engineering: Ideal Properties and Characterization Techniques," NATO Advanced Study Institute on Polymer Based Systems on Tissue Engineering, Replacement and Regeneration, Alvor, Portugal, October 24, 2001.
284. J.S. Temenoff, V.I. Sikavitsas\*, and A.G. Mikos, "Novel Injectable Hydrogels for Cartilage Tissue Engineering," NATO Advanced Study Institute on Polymer Based Systems on Tissue Engineering, Replacement and Regeneration, Alvor, Portugal, October 24, 2001.
285. J.P. Fisher\*, D. Dean, and A.G. Mikos, "Photocrosslinking of Diethyl Fumarate and Poly(Propylene Fumarate) for the Engineering of Bone Grafts," Annual AIChE Meeting, Reno, Nevada, November 5, 2001.
286. M.D. Timmer\*, C.G. Ambrose, and A.G. Mikos, "Quantification of the Crosslinking Density of Poly(Propylene Fumarate)-Based Biodegradable Networks," Annual AIChE Meeting, Reno, Nevada, November 5, 2001.
287. H.L. Holtorf\*, S. Jo, and A.G. Mikos, "Development of a Novel Biodegradable Cationic Polymer for Nonviral Gene Delivery," Annual AIChE Meeting, Reno, Nevada, November 8, 2001.
288. V.I. Sikavitsas\*, G.N. Bancroft, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Culture of Bone Marrow Stromal Cells Seeded on Three-Dimensional Porous Scaffolds in a Flow Perfusion Bioreactor," Annual AIChE Meeting, Reno, Nevada, November 8, 2001.
289. A.G. Mikos\*, "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," Annual Conference on Regenerative Medicine: Rebuilding the Human Body, Washington, D.C., December 3, 2001.
290. H. Shin\* and A.G. Mikos, "Biomimetic Biodegradable Hydrogels Modulating Marrow Stromal Osteoblast Adhesion," Annual Meeting of Orthopaedic Research Society, Dallas, Texas, February 10, 2002.

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291. G.N. Bancroft\*, V.I. Sikavitsas, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Three-Dimensional Culture of Marrow Stromal Osteoblasts on Titanium Fiber Mesh Scaffolds in a Flow Perfusion Bioreactor," Annual Meeting of Orthopaedic Research Society, Dallas, Texas, February 12, 2002.
292. A.G. Mikos\*, E.L. Hedberg, F.K. Kasper, J.S. Temenoff, "Injectable, *In Situ* Crosslinkable, Biodegradable Polymers for Peptide and Gene Delivery," American Association of Pharmaceutical Scientists Workshop on Critical Issues in the Design and Applications of Polymeric Biomaterials in Drug Delivery, Arlington, Virginia, February 28, 2002.
293. A.G. Mikos\*, "Engineering Human Tissues," Foundation for Research and Technology Hellas Conference, Metsovo, Greece, March 2, 2002.
294. A.G. Mikos\*, "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," Biomaterials - The Next Frontiers Conference: Biomedical, Bioelectronic, Biomineralization, Bioanalytical, University of Delaware, Newark, Delaware, March 12, 2002.
295. A.G. Mikos\*, "Injectable Biomimetic Hydrogels for Tissue Engineering," Engineering Tissue Growth International Conference and Exposition, Pittsburgh, Pennsylvania, March 19, 2002.
296. A.G. Mikos and J.P. Fisher\*, "Biomimetic Polymer Scaffolds for Bone Tissue Engineering," Annual Meeting of the American Association of Anatomists - Experimental Biology 2002, New Orleans, Louisiana, April 23, 2002.
297. J.P. Fisher\* and A.G. Mikos, "Injectable Biodegradable Hydrogels for Drug Delivery and Tissue Engineering," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
298. E.S. Steinbis\*, J.S. Temenoff, and A.G. Mikos, "Effect of Drying History on Swelling Properties of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Guided Tissue Growth in Dental Applications," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
299. E.L. Hedberg\*, A. Tang, R.S. Crowther, D.H. Carney, and A.G. Mikos, "Controlled Release of an Osteoinductive Peptide from Injectable, Biodegradable Polymeric Composite Scaffolds for Bone Tissue Engineering," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
300. A.K. Shung\*, E. Behraves, S. Jo, and A.G. Mikos, "Characterization of an Injectable Poly(Propylene Fumarate-co-Ethylene Glycol) Block Copolymer Hydrogel Using a Water Soluble Crosslinking System," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
301. M.N. Cooke\*, J.P. Fisher, C. Rimnac, D. Dean, and A.G. Mikos, "Control of 3D Biodegradable Scaffold Geometry," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
302. J.W. Vehof\*, J.P. Fisher, D. Dean, P.H. Spauwen, A.G. Mikos, and J.A. Jansen, "Bone Formation in Transforming Growth Factor  $\beta$ -1-Coated Porous Poly(Propylene Fumarate) Scaffolds," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 26, 2002.
303. K. Tanahashi\*, S. Jo, and A.G. Mikos, "Synthesis of Injectable, Biodegradable Hydrogels of Poly(Propylene Fumarate-co-Ethylene Glycol) Modified with Agmatine for Enhanced Cell Adhesion," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 26, 2002.

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304. F.M. Wale\*, C.N. Demers, A. Petit, J.S. Temenoff, V. Lim, J. Fisher, D. Zukor, O. Huk, A.G. Mikos, P. Roughley, and J. Antoniou, "Analysis of Poly(Propylene Fumarate-co-Ethylene Glycol) as a Scaffold for Use in Tissue Engineering of Intervertebral Disc: Retention of Collagen and Proteoglycan," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 27, 2002.
305. E. Behravesh\*, K. Zygorakis, and A.G. Mikos, "Marrow Stromal Osteoblast Adhesion and Migration on Poly(Propylene Fumarate-co-Ethylene Glycol)-Based Hydrogels with a Covalently Linked GRGDS Peptide Sequence," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 27, 2002.
306. A.G. Mikos\*, "Polymers and Cytokines to Augment Bone Production," Edward C. Hinds Symposium on Contemporary Oral and Maxillofacial Surgery, Houston, Texas, April 27, 2002.
307. A.G. Mikos\*, "The Added Value of Synthetic Polymers in Tissue Engineering," Aegean Conference on Tissue Engineering Science, Myconos, Greece, May 21, 2002.
308. V.I. Sikavitsas, G.N. Bancroft, J. van den Dolder, J.A. Jansen, and A.G. Mikos\*, "Fluid Flow Increases Mineralized Matrix Deposition in Three-Dimensional Perfusion Culture of Marrow Stromal Osteoblasts in a Dose-Dependent Manner," Aegean Conference on Tissue Engineering Science, Myconos, Greece, May 22, 2002.
309. L.A. Solchaga\*, J. Gao, J.S. Temenoff, A.G. Mikos, V.M. Goldberg, and A.I. Caplan, "Repair of Osteochondral Defects with Hyaluronan-, PLGA- and PLLA-Based Scaffolds: A Comparative Study," 4th International Cartilage Repair Society Symposium, Toronto, Canada, June 16, 2002.
310. A.G. Mikos\*, E.L. Hedberg, S. Jo, F.K. Kasper, H. Shin, and J.S. Temenoff, "Injectable Biodegradable Hydrogels for Tissue Engineering," 29th International Symposium on Controlled Release of Bioactive Materials, Seoul, Korea, July 23, 2002.
311. A.G. Mikos\*, "Bioreactor Technology for Bone Tissue Engineering," 3rd Smith & Nephew International Symposium on Translating Tissue Engineering into Products, Atlanta, Georgia, October 14, 2002.
312. A.G. Mikos\*, "Controlled Release of Osteogenic Molecules from Polymeric Carriers," 4th International Conference on Bone Morphogenetic Proteins, Sacramento, California, October 19, 2002.
313. J.P. Fisher\*, Z. Lalani, C.M. Bossano, E.M. Brey, N. Demian, M.E.K. Wong, and A.G. Mikos, "Immunohistochemical Evaluation of Bone Formation within Biodegradable Tissue Engineering Scaffolds," 4th International Conference on Bone Morphogenetic Proteins, Sacramento, California, October 19, 2002.
314. E.L. Hedberg\*, J.S. Temenoff, A. Tang, R.S. Crowther, D.H. Carney, and A.G. Mikos, "Controlled Release of a Tissue Inducing Peptide from Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Orthopaedic Tissue Engineering," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 23, 2002.
315. J.S. Temenoff\*, H. Shin, P.S. Engel, and A.G. Mikos, "Cytotoxicity of Redox Radical Initiators for Encapsulation of Mesenchymal Stem Cells," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 24, 2002.
316. E. Behravesh\*, M.D. Timmer, J.J. Lemoine, M.A.K. Liebschner, and A.G. Mikos, "In Vitro Degradation of In Situ Crosslinkable Poly(Propylene Fumarate-co-Ethylene Glycol)-Based Macroporous Hydrogels," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 24, 2002.

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317. J.P. Fisher\*, Z. Lalani, N. Demian, M.E.K. Wong, and A.G. Mikos, "Immunohistochemical Characterization of Guided Bone Formation by a Biodegradable Tissue Engineering Scaffold in a Healing Tooth Socket of a Rabbit Model," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 24, 2002.
318. V.I. Sikavitsas\*, G.N. Bancroft, J. van den Dolder, T.L. Sheffield, J.A. Jansen, C.G. Ambrose, and A.G. Mikos, "Fluid Flow Increases Mineralized Matrix Deposition in Three-Dimensional Perfusion Culture of Marrow Stromal Osteoblasts in a Dose-Dependent Manner," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 26, 2002.
319. J.P. Fisher\*, Z. Lalani, N. Demian, M.E.K. Wong, and A.G. Mikos, "Characterization of Bone Formation within a Biodegradable Tissue Engineering Scaffold Using Immunohistochemical Techniques," Annual AIChE Meeting, Indianapolis, Indiana, November 5, 2002.
320. E. Jabbari\*, E. Behraves, and A.G. Mikos, "Development of a Biodegradable Redox Initiated Oligo(PEG Fumarate)-Based Hydrogel as an *In Situ* Crosslinkable Cell Carrier," Annual AIChE Meeting, Indianapolis, Indiana, November 5, 2002.
321. E. Jabbari\*, F.K. Kasper, and A.G. Mikos, "Controlled Release of Plasmid DNA from Biodegradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Microspheres," Annual AIChE Meeting, Indianapolis, Indiana, November 7, 2002.
322. V.I. Sikavitsas\*, G.N. Bancroft, J.A. Jansen, and A.G. Mikos, "Effect of Shear Forces on the Osteogenic Differentiation of Marrow Stromal Cells," Annual AIChE Meeting, Indianapolis, Indiana, November 7, 2002.
323. A.G. Mikos and J.P. Fisher\*, "Injectable Biodegradable Hydrogels for Tissue Engineering," Polymers in Medicine and Biology: 2002, Rohnert Park, California, November 16, 2002.
324. A.G. Mikos\*, "Materials and Scaffolds for Tissue Engineering," Annual Meeting of the Dutch Society for Biomaterials and Tissue Engineering, Lunteren, The Netherlands, December 17, 2002.
325. J.S. Blum\*, A.G. Mikos, and M.A. Barry, "Influence of Osteogenic Supplements on Gene Transfer and Expression in Rat Marrow Stromal Cells by Adenoviral, Retroviral, and Cationic Lipid Vectors for both Reporter and Therapeutic Proteins," Annual Meeting of Orthopaedic Research Society, New Orleans, Louisiana, February 2, 2003.
326. L.A. Solchaga\*, J. Gao, J.S. Temenoff, A.G. Mikos, V.M. Goldberg, and A.I. Caplan, "Repair of Osteochondral Defects with Hyaluronan-, and Polyester-Based Scaffolds," Annual Meeting of Orthopaedic Research Society, New Orleans, Louisiana, February 3, 2003.
327. A.G. Mikos\*, "The Use of Biodegradable Materials in Bone Tissue Engineering," Annual Meeting of Orthopaedic Research Society, New Orleans, Louisiana, February 4, 2003.
328. J.S. Temenoff\*, H. Shin, and A.G. Mikos "Cytotoxicity of Components of Oligo(Poly(Ethylene Glycol) Fumarate)-Based Hydrogels for Encapsulation of Marrow Stromal Cells," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 1, 2003.
329. H. Shin\*, P.Q. Ruhé, J.A. Jansen, and A.G. Mikos, "*In Vivo* Bone and Soft Tissue Response to Biodegradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 2, 2003.
330. M.E. Gomes\*, V.I. Sikavitsas, E. Behraves, R.L. Reis, and A.G. Mikos, "Effect of Flow Perfusion on Osteogenic Differentiation of Bone Marrow Stromal Cells Cultured on Starch



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- Based Three-Dimensional Scaffolds,” 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 2, 2003.
331. J. van den Dolder, V.I. Sikavitsas, G.N. Bancroft, P.H.M. Spauwen, J.A. Jansen\*, and A.G. Mikos, “Cell/Titanium Bone Tissue Engineered Constructs Using a Rat Cranial Size Defect Model,” 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 2, 2003.
  332. T.M.G. Chu\*, C.L. Flanagan, S.J. Hollister, S.E. Feinberg, J.P. Fisher, and A.G. Mikos, “The Mechanical and In Vivo Performance of 3-D Poly(Propylene Fumarate)/Tricalcium Phosphate Scaffolds,” 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 2, 2003.
  333. V.I. Sikavitsas\*, G.N. Bancroft, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, “Fluid Shear Forces Mediate the Osteogenic Differentiation of Marrow Stromal Osteoblasts in a Three-Dimensional Perfusion Culture,” 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 3, 2003.
  334. T.A. Holland\*, Y. Tabata, and A.G. Mikos, “Controlled Release of TGF- $\beta$ 1 from Gelatin Microparticles Encapsulated in Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels,” 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 20, 2003.
  335. E.L. Hedberg\*, H.C. Kroese-Deutman, J.J. Lemoine, C.K. Shih, R.S. Crowther, D.H. Carney, M.A.K. Liebschner, A.G. Mikos, and J.A. Jansen, “*In Vivo* Osteogenesis in Response to the Controlled Release of TP508 from Biodegradable Polymeric Scaffolds,” 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 22, 2003.
  336. R.A. Horch, M.D. Timmer, A.R. Barron, and A.G. Mikos\*, “Poly(Propylene Fumarate)-Based Nanocomposites for Bone Tissue Engineering,” 2003 Nano Summit, Houston, Texas, July 31, 2003.
  337. A.G. Mikos\*, “Fluid Flow in Tissue Engineering of 3D Bone Scaffolds,” 5th International Bone Fluid Flow Workshop, Cleveland, Ohio, September 18, 2003.
  338. E.L. Hedberg\*, C. Shih, L.A. Solchaga, A.I. Caplan, and A.G. Mikos, “Controlled Release of Hyaluronic Acid Oligomers from Biodegradable Polymeric Microparticles,” Annual BMES Fall Meeting, Nashville, Tennessee, October 2, 2003.
  339. B. Bucklen\*, M.A. Wettergreen, A.G. Mikos, and M.A. Liebschner, “Scaffold Design Using Model-Based Mechanotransduction Principles,” Annual BMES Fall Meeting, Nashville, Tennessee, October 2, 2003.
  340. V.I. Sikavitsas\*, G.N. Bancroft, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, “Bone Tissue Engineering by Cell and *In Vitro* Generated Extracellular Matrix Transplantation,” Annual BMES Fall Meeting, Nashville, Tennessee, October 2, 2003.
  341. H.L. Holtorf\*, N. Datta, J.A. Jansen, and A.G. Mikos, “Effect of Scaffold Pore Size on Marrow Stromal Cell Differentiation in a Flow Perfusion Bioreactor,” Annual BMES Fall Meeting, Nashville, Tennessee, October 2, 2003.
  342. J.S. Temenoff\*, H. Park, E. Jabbari, and A.G. Mikos, “Bone Formation from Marrow Stromal Cells Encapsulated in Oligo(PEG Fumarate) Hydrogels,” Annual BMES Fall Meeting, Nashville, Tennessee, October 3, 2003.
  343. E. Behraves, V.I. Sikavitsas\*, and A.G. Mikos, “Quantification of Ligand Surface Concentration of Bulk Modified Biomimetic Hydrogels,” BioInterface 2003, Savannah, Georgia, October 24, 2003.

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344. H. Shin\*, K. Zygourakis, M.C. Farach-Carson, M.J. Yaszemski, and A.G. Mikos, "Attachment, Proliferation, and Migration of Marrow Stromal Osteoblasts Cultured on Biomimetic Hydrogels Modified with an Osteopontin-Derived Peptide," BioInterface 2003, Savannah, Georgia, October 24, 2003.
345. A.G. Mikos\*, "The International Perspective," Symposium Tissue Engineering, Netherlands Technology Foundation, Ede, The Netherlands, November 7, 2003.
346. V.I. Sikavitsas\*, G.N. Bancroft, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Bone Regeneration by Marrow Stromal Osteoblast Transplantation," Annual AIChE Meeting, San Francisco, California, November 17, 2003.
347. T.A. Holland, J.K. Tessmar, Y. Tabata, and A.G. Mikos\*, "Sustained Release of Transforming Growth Factor- $\beta$ 1 from Novel Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels Encapsulating Gelatin Microparticles in Conditions that Model the Cartilage Wound Healing Environment," Annual AIChE Meeting, San Francisco, California, November 18, 2003.
348. G. Cheng\*, H. Shin, A.G. Mikos, and K. Zygourakis, "3-Dimensional Transmigration of Human Dermal Fibroblasts from Collagen Gels to Biomimetic Hydrogels Modified with Peptide Sequences," Annual AIChE Meeting, San Francisco, California, November 18, 2003.
349. A.G. Mikos\*, "Synthetic Polymers for Tissue Engineering," Annual AIChE Meeting, San Francisco, California, November 19, 2003.
350. R.A. Horch\*, M.D. Timmer, A.R. Barron, and A.G. Mikos, "Reinforcement of Poly(Propylene Fumarate)-Based Networks with Surface Modified Alumoxane Nanoparticles for Bone Tissue Engineering," Annual AIChE Meeting, San Francisco, California, November 20, 2003.
351. J.P. Fisher\*, A.G. Mikos, and A.H. Reddi, "Hydrogel Scaffolds for Tissue Engineering of Articular Cartilage," Annual AIChE Meeting, San Francisco, California, November 20, 2003.
352. A.G. Mikos\*, "Recent Progress in Tissue Engineering Using Biodegradable Polymers," 1st International Conference on Epithelial Technologies and Tissue Engineering, Singapore, December 4, 2003.
353. P.Q. Ruhé\*, E.L. Hedberg, N.T. Padron, P.H.M. Spauwen, J.A. Jansen, and A.G. Mikos, "rhBMP-2 Release from Injectable Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites," 6th Annual International Conference and Exposition of Tissue Engineering Society International, Orlando, Florida, December 12, 2003.
354. M.S. Wolfe\*, D. Dean, A. Totonchi, J. Chen, Y. Ahmad, C. Rimnac, and A.G. Mikos, "Osseointegration of Porous Poly(Propylene Fumarate) Scaffolds Treated with Transforming Growth Factor- $\beta$ 2 in a Critical Size Rabbit Skull Defect," 6th Annual International Conference and Exposition of Tissue Engineering Society International, Orlando, Florida, December 12, 2003.
355. G. Cheng\*, H. Shin, A.G. Mikos, and K. Zygourakis, "Expansion of Marrow Stromal Osteoblast Megacolonyes on Biomimetic Hydrogels: Interpreting and Evaluating the Assay Data," 21st Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 12, 2004.
356. X. Shi\*, J. Hudson, R.A. Horch, J.M. Tour, R. Krishnamoorti, and A.G. Mikos, "Carbon Nanotube/Poly(Propylene Fumarate) Composites for Bone Tissue Engineering," 21st

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- Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 12, 2004.
357. H. Shin\*, K. Zygourakis, M.C. Farach-Carson, M.J. Yaszemski, and A.G. Mikos, "Modulation of Differentiation and Mineralization of Marrow Stromal Cells Cultured on Biomimetic Hydrogels Modified with an Osteopontin-Derived Peptide," Annual Meeting of Orthopaedic Research Society, San Francisco, California, March 7, 2004.
  358. M.A. Wettergreen\*, J.E. Pan, J.J. Lemoine, A.G. Mikos, and M.A.K. Liebschner, "Modification of Apparent Scaffold Properties Through Porogen Surface to Volume Ratio Manipulation," Annual Meeting of Orthopaedic Research Society, San Francisco, California, March 7, 2004.
  359. P.Q. Ruhé\*, E.L. Hedberg, N.T. Padron, P.H.M. Spauwen, A.G. Mikos, and J.A. Jansen, "Biocompatibility and Degradation of Injectable Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites," Annual Meeting of the International Association for Dental Research, Honolulu, Hawaii, March 11, 2004.
  360. A.G. Mikos\*, "Scaffold-Based Tissue Engineering Approaches," Annual Meeting of the International Association for Dental Research, Honolulu, Hawaii, March 11, 2004.
  361. H. Shin, G.C. Bowden\*, and A.G. Mikos, "Osteogenic Differentiation of Marrow Stromal Cells Cultured on Biomimetic Hydrogels," Annual Meeting of the International Association for Dental Research, Honolulu, Hawaii, March 11, 2004.
  362. A.G. Mikos\*, "Synthetic Polymers for Tissue Engineering," National ACS Meeting, Anaheim, California, March 28, 2004.
  363. A.G. Mikos\*, "Scaffold-Based Tissue Engineering," United Kingdom/Texas Symposium on Tissue Engineering and Regenerative Medicine, Imperial College, London, England, March 30, 2004.
  364. T.A. Holland, Z.S. Patel, Y. Tabata, and A.G. Mikos\*, "Growth Factor Delivery from Injectable Hydrogel Scaffolds for Tissue Engineering," European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands, April 7, 2004.
  365. J.A. Jansen\*, J.W.M. Vehof, P.Q. Ruhé, H. Kroeze-Deutman, J.P. Fisher, E.L. Hedberg, and A.G. Mikos, "Growth Factor Loaded Scaffolds for Bone Engineering," European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands, April 7, 2004.
  366. A.G. Mikos\*, "Biomaterials for Tissue Engineering," 1st Biennial Symposium on Tissue Engineering and Regeneration, University of Michigan, Ann Arbor, Michigan, May 12, 2004.
  367. J.P. Fisher\*, S. Jo, A.G. Mikos, and A.H. Reddi, "Thermoreversible Hydrogel Scaffolds for Articular Cartilage Tissue Engineering," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.
  368. M.E. Gomes\*, C.M. Bossano, C.M. Johnston, R.L. Reis, and A.G. Mikos, "Expression of Bone Growth Factors by MSCs Cultured on Starch/Poly( $\epsilon$ -caprolactone) Scaffolds Using a Flow Perfusion Bioreactor," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.
  369. J.S. Temenoff\*, H. Park, E. Jabbari, T.L. Sheffield, R.G. LeBaron, C.G. Ambrose, and A.G. Mikos, "Swelling of Fumarate-Based Hydrogels Affects Osteogenic Differentiation of Embedded Marrow Stromal Cells," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.

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370. N. Datta\*, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "In Vitro Synthesis of Osteoinductive Extracellular Matrix for Bone Tissue Engineering," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.
371. J.K. Tessmar\*, C.R. Rieger, M.A. Burrell, and A.G. Mikos, "Synthesis of Unsaturated Fumarate-Based Macromers and their Crosslinked Hydrogels," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.
372. E.L. Hedberg\*, C.K. Shih, M.D. Timmer, J.J. Lemoine, M.A.K. Liebschner, J.A. Jansen, and A.G. Mikos, "In Vitro Degradation of Poly(Propylene Fumarate)-Based Controlled Release Scaffolds," 7th World Biomaterials Congress, Sydney, Australia, May 19, 2004.
373. M.E. Gomes\*, H.L. Holtorf, R.L. Reis, and A.G. Mikos, "Influence of the Porosity of Starch-Based Fiber Meshes on the Proliferation and Osteogenic Differentiation of Marrow Stromal Cells Cultured under Flow Perfusion," 7th World Biomaterials Congress, Sydney, Australia, May 20, 2004.
374. H.L. Holtorf\*, J.A. Jansen, and A.G. Mikos, "Effect of Dexamethasone on Osteodifferentiation of MSC/Scaffold Constructs under Flow Perfusion," 7th World Biomaterials Congress, Sydney, Australia, May 20, 2004.
375. E.L. Hedberg\*, H.C. Kroese-Deutman, C.K. Shih, R.S. Crowther, D.H. Carney, A.G. Mikos, and J.A. Jansen, "Controlled Release from Biodegradable Polymeric Scaffolds for Repair of Segmental Bone Defects," 7th World Biomaterials Congress, Sydney, Australia, May 21, 2004.
376. T.A. Holland\*, J.K. Tessmar, Y. Tabata, and A.G. Mikos, "Growth Factor Release from Injectable, Enzymatically-Degradable Hydrogel Composites for Cartilage Tissue Engineering," 7th World Biomaterials Congress, Sydney, Australia, May 21, 2004.
377. H. Ueda\*, S. Jo, D.M. Ammon, and A.G. Mikos, "Sustained Release of Fluocinolone Acetonide from Photo-Crosslinked Poly(Propylene Fumarate) Matrices," 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 12, 2004.
378. M.E. Gomes\*, C.M. Bossano, C.M. Johnston, R.L. Reis, and A.G. Mikos, "Bone Growth Factors Expressed by Marrow Stromal Cells Cultured on Starch/Polycaprolactone Fiber Mesh Scaffolds under Flow Perfusion Conditions," Joint Meeting of Tissue Engineering Society International and European Tissue Engineering Society, Lausanne, Switzerland, October 11, 2004.
379. H. Park\*, J.S. Temenoff, and A.G. Mikos, "Injectable Biodegradable Hydrogels for TGF- $\beta$ 1 and Chondrocyte Delivery for Cartilage Tissue Engineering," Joint Meeting of Tissue Engineering Society International and European Tissue Engineering Society, Lausanne, Switzerland, October 12, 2004.
380. M. Wettergreen\*, B. Bucklen, A.G. Mikos, and M.A.K. Liebschner, "Tailoring the Mechanical Environment of Scaffolds with Computer Aided Design and Rapid Prototyping," Annual BMES Fall Meeting, Philadelphia, Pennsylvania, October 14, 2004.
381. H. Castano\*, J.F. Alvarez-Barreto, J. van den Dolder, J.A. Jansen, A.G. Mikos, and V.I. Sikavitsas, "The Ability of Marrow Stromal Cells to Regenerate Bone Is Controlled by their Differentiation Stage," Annual BMES Fall Meeting, Philadelphia, Pennsylvania, October 16, 2004.
382. A.G. Mikos\*, "Synthetic Polymers for Tissue Engineering," Annual AIChE Meeting, Austin, Texas, November 8, 2004.

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383. H. Castano, J. van den Dolder, J.A. Jansen, A.G. Mikos, and V.I. Sikavitsas\*, "The Differentiation Stage of Marrow Stromal Osteoblasts Influences their Ability to Induce *In Vivo* Bone Formation in an Orthotopic Site," Annual AIChE Meeting, Austin, Texas, November 10, 2004.
384. A.G. Mikos\*, "Biodegradable, *In-Situ* Crosslinkable Hydrogels as Injectable Carriers for Cell and Drug Delivery," Southeastern Regional ACS Meeting, Research Triangle Park, North Carolina, November 12, 2004.
385. A.G. Mikos\*, "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 29, 2004.
386. A.S. Mistry\*, A.R. Barron, and A.G. Mikos, "*In Vitro* Accelerated Degradation of a Poly(Propylene Fumarate)-Based/Alumoxane Nanocomposite for Bone Tissue Engineering," 22nd Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 10, 2005.
387. C.-Y. Lin\*, R.M. Schek, A.S. Mistry, X. Shih, A.G. Mikos, P.H. Krebsbach, and S.J. Hollister, "Functional Bone Tissue Engineering Using *Ex Vivo* Gene Therapy and Topology Optimized, Biodegradable Polymer Composite Scaffolds," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 20, 2005.
388. T.A. Holland\*, E.W.H. Bodde, L.S. Baggett, Y. Tabata, A.G. Mikos, and J.A. Jansen, "Osteochondral Repair in the Rabbit Model Utilizing Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Scaffolds," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 21, 2005.
389. M.A. Wettergreen, W. Sun, A.G. Mikos, and M.A.K. Liebschner\*, "Geometric Characterization of Scaffold Building Blocks for Tissue Engineering," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 21, 2005.
390. M.E. Gomes\*, R.L. Reis, and A.G. Mikos, "Bone Marrow Stromal Cells Cultured on Starch Based Three-Dimensional Scaffolds in a Flow Perfusion Bioreactor: A Promising *In-Vitro* Approach for Obtaining Bone Tissue Substitutes," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 21, 2005.
391. T.G. Chu\*, R.L. Stewart, S.J. Warden, C.H. Turner, and A.G. Mikos, "A Load-Bearing, Biodegradable BMP Carrier for Bone Regeneration in a Segmental Defect," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 21, 2005.
392. A.G. Mikos\*, "Injectable Scaffolds for Bone and Cartilage Tissue Engineering," 12th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 24, 2005.
393. X. Shi\*, J. Hudson, P.P. Spicer, R. Krishnamoorti, J.M. Tour, and A.G. Mikos, "Rheological Behavior and Mechanical Reinforcement of Poly(Propylene Fumarate)-Based Single-Walled Carbon Nanotube Composites," 30th Annual Meeting of the Society For Biomaterials, Memphis, Tennessee, April 28, 2005.
394. H.L. Holtorf\*, J.A. Jansen, and A.G. Mikos, "Flow Perfusion Culture Induces the Osteoblastic Differentiation of Marrow Stromal Cell-Scaffold Constructs in the Absence of Dexamethasone," 30th Annual Meeting of the Society For Biomaterials, Memphis, Tennessee, April 29, 2005.
395. H.L. Holtorf\*, N. Datta, J.A. Jansen, and A.G. Mikos, "Pore Size of Fiber Mesh Scaffolds Affects the Osteoblastic Differentiation of Seeded Marrow Stromal Cells Cultured in a Flow Perfusion Bioreactor," 30th Annual Meeting of the Society For Biomaterials, Memphis, Tennessee, April 30, 2005.

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396. A.G. Mikos\*, "Engineering Complex Orthopaedic Tissues," Tissue Engineering: The Next Generation Workshop, Cambridge, Massachusetts, May 3, 2005.
397. H.L. Holtorf, J.A. Jansen, and A.G. Mikos\*, "Modulation of Cell Differentiation in Bone Tissue Engineering Constructs Cultured in a Bioreactor," 2nd Aegean Conference on Tissue Engineering, Crete, Greece, May 24, 2005.
398. W.J.E.M. Habraken\*, J.G.C. Wolke, A.G. Mikos, and J.A. Jansen, "Calcium Phosphate/PLGA Microsphere Composites: Physical Properties and Degradation Characteristics," 2nd Aegean Conference on Tissue Engineering, Crete, Greece, May 24, 2005.
399. F.K. Kasper\*, S.K. Seidlits, M.A. Barry, and A.G. Mikos, "*In Vitro* Release of Plasmid DNA from Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," 32nd International Symposium on Controlled Release of Bioactive Materials, Miami Beach, Florida, June 22, 2005.
400. F.K. Kasper\*, T. Kushibiki, Y. Kimura, A.G. Mikos, and Y. Tabata, "*In Vivo* Release of Plasmid DNA from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres," 32nd International Symposium on Controlled Release of Bioactive Materials, Miami Beach, Florida, June 22, 2005.
401. A.G. Mikos\*, T.A. Holland, F.K. Kasper, and J.S. Temenoff, "Cell and Bioactive Factor Delivery from Injectable, Biodegradable Hydrogel Scaffolds for Tissue Engineering," 3rd International Conference on Materials for Advanced Technologies, Singapore, July 8, 2005.
402. H.L. Holtorf, J.A. Jansen, and A.G. Mikos\*, "Modulation of Cell Differentiation in Bone Tissue Engineering Constructs Cultured in a Flow Perfusion Bioreactor," 7th International Bone Fluid Flow Workshop, New York, New York, September 21, 2005.
403. S.A. Moore\*, J. Tessmar, and A.G. Mikos, "Matrix Metalloproteinase-Sensitive Hydrogels for Articular Cartilage Engineering," Annual BMES Fall Meeting, Baltimore, Maryland, September 29, 2005.
404. M.C. Hacker\* and A.G. Mikos, "Novel Macromers for the Formation of Injectable, Calcium-Binding, *In Situ* Hardening Hydrogels," Annual BMES Fall Meeting, Baltimore, Maryland, September 29, 2005.
405. A.S. Mistry\*, A.R. Barron, A.G. Mikos, and J.A. Jansen, "Degradation and Biocompatibility of a PPF-Based/Alumoxane Nanocomposite for Bone Tissue Engineering," Annual BMES Fall Meeting, Baltimore, Maryland, September 30, 2005.
406. Z.S. Patel\*, Y. Tabata, and A.G. Mikos, "*In Vitro* Release of Vascular Endothelial Growth Factor from Gelatin Microparticles," Annual BMES Fall Meeting, Baltimore, Maryland, October 1, 2005.
407. A.G. Mikos\*, "Biodegradable Polymers for Tissue Engineering," Texas/United Kingdom Symposium on Medicine and Medical Devices, Rice University, Houston, Texas, October 10, 2005.
408. A.G. Mikos\*, "Trends in Tissue Engineering Research: An Editor's Perspective," 8th Annual Meeting of Tissue Engineering Society International, Shanghai, China, October 22, 2005.
409. N. Datta, Q.P. Pham, U. Sharma\*, V.I. Sikavitsas, J.A. Jansen, and A.G. Mikos, "*In Vitro* Generated Extracellular Matrix and Fluid Shear Stress Synergistically Enhance 3D Osteoblastic Differentiation," 8th Annual Meeting of Tissue Engineering Society International, Shanghai, China, October 23, 2005.

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410. A.S. Mistry\*, M. Hacker, A.R. Barron, and A.G. Mikos, "Accelerated Degradation of a PPF-Based/Alumoxane Nanocomposite for Bone Tissue Engineering: Mechanical Properties and Macromolecular Structure," 8th Annual Meeting of Tissue Engineering Society International, Shanghai, China, October 24, 2005.
411. H. Park\*, J.S. Temenoff, and A.G. Mikos, "Injectable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Composites for Concurrent Delivery of Marrow Stromal Cells and Growth Factors," 8th Annual Meeting of Tissue Engineering Society International, Shanghai, China, October 24, 2005.
412. U. Sharma, Q.P. Pham\*, N. Datta, and A.G. Mikos, "Using Bone-like ECM Produced *In Vitro* to Influence Osteoblastic Differentiation of Marrow Stromal Cells," Annual AIChE Meeting, Cincinnati, Ohio, November 3, 2005.
413. A.G. Mikos\*, "Injectable Hydrogel Composites," 6th Symposium of International Cartilage Repair Society, San Diego, California, January 10, 2006.
414. H. Park\*, T.A. Holland, J.S. Temenoff, and A.G. Mikos, "Injectable Biodegradable Hydrogel Composites for Cell and Growth Factor Delivery for Cartilage Tissue Engineering," 6th Symposium of International Cartilage Repair Society, San Diego, California, January 10, 2006.
415. M.C. Hacker\*, B.B. Ma, and A.G. Mikos, "Macromers for Injectable Cell Carriers for Tissue Engineering Applications," 24th Scientific Conference of Society for Physical Regulation in Biology and Medicine, Cancun, Mexico, January 11, 2006.
416. M.C. Hacker and A.G. Mikos\*, "Design of Injectable Biodegradable Polymers for Tissue Regeneration," 24th Scientific Conference of Society for Physical Regulation in Biology and Medicine, Cancun, Mexico, January 12, 2006.
417. A.G. Mikos\*, "Bioreactors for Bone Tissue Engineering," Regenerate World Congress on Tissue Engineering and Regenerative Medicine, Pittsburgh, Pennsylvania, April 25, 2006.
418. B. Sitharaman\*, L.A. Tran, P.P. Spicer, I. Rusakova, A.G. Mikos, and L.J. Wilson, "Fabrication and Characterization of Carbon Nanostructure *In Situ* Crosslinkable Composites for Bone Tissue Engineering," Regenerate World Congress on Tissue Engineering and Regenerative Medicine, Pittsburgh, Pennsylvania, April 25, 2006.
419. M.C. Hacker\*, B.B. Ma, J.D. Kretlow, and A.G. Mikos, "Novel Macromers for the Fabrication of Injectable, Calcium-Binding Hydrogels," 31st Annual Meeting of the Society For Biomaterials, Pittsburgh, Pennsylvania, April 27, 2006.
420. F.K. Kasper\*, E. Jerkins, K. Tanahashi, M.A. Barry, Y. Tabata, and A.G. Mikos, "Characterization of DNA Release from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres *In Vitro*," 31st Annual Meeting of the Society For Biomaterials, Pittsburgh, Pennsylvania, April 27, 2006.
421. B. Sitharaman\*, L.A. Tran, R.D. Bolskar, S.D. Flamm, R. Muthupillai, A.G. Mikos, and L.J. Wilson, "Gd@ (Carbon Nanostructures) as Nanoprobes for Cellular Magnetic Resonance Imaging," 31st Annual Meeting of the Society For Biomaterials, Pittsburgh, Pennsylvania, April 28, 2006.
422. A.G. Mikos\*, "Biomaterials for Tissue Engineering," Rebuilding Humans: The Seattle Tissue Engineering Initiative Symposium, Seattle, Washington, May 27, 2006.
423. A.G. Mikos\*, "Polymeric Systems in Tissue Engineering and Regeneration," 1st Marie Curie Cutting Edge InVENTS Conference on New Developments on Polymers for Tissue Engineering, Replacement and Regeneration, Madeira, Portugal, June 1, 2006.

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424. A.G. Mikos\*, "New Developments on Polymers for Tissue Engineering, Replacement and Regeneration," 1st Marie Curie Cutting Edge InVENTS Conference on New Developments on Polymers for Tissue Engineering, Replacement and Regeneration, Madeira, Portugal, June 2, 2006.
425. A.G. Mikos\*, "Nanobiomaterials for Tissue Engineering," Symposium on Nanomedicine and Tissue Engineering in Memory of Professor C.J. Lee, National Tsing Hua University, Hsinchu, Taiwan, June 23, 2006.
426. A.G. Mikos\*, "*In Vitro* Generation of Extracellular Matrix for Use as a Tissue Engineering Scaffold," Conference Celebrating Thirty Years of Robert Langer's Science, Cambridge, Massachusetts, July 15, 2006.
427. J.K. Tessmar\*, M.A. Burrell, A. Rivelli, A.M. Goepferich, and A.G. Mikos, "Modification of the Release from Oligo(Poly(Ethylene Glycol) Fumarate) Based Hydrogels by Copolymerization with Lipophilic Poly(Propylene Glycol)," 33rd Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria, July 24, 2006.
428. F.K. Kasper\*, S. Young, K. Tanahashi, M.A. Barry, Y. Tabata, J.A. Jansen, and A.G. Mikos, "Evaluation of Bone Regeneration by DNA Release from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres in a Critical-Sized Calvarial Defect," 33rd Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria, July 23, 2006.
429. Z.S. Patel\*, Y. Tabata, and A.G. Mikos, "Gelatin Microparticles for the Controlled Release of an Angiogenic and an Osteogenic Growth Factor," 33rd Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria, July 23, 2006.
430. A. Saraf, M. Hacker, and A.G. Mikos\*, "Synthesis of a Poly(Ethylenimine) Conjugate of Hyaluronic Acid for Gene Delivery Applications," 33rd Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria, July 25, 2006.
431. A.G. Mikos\*, "Bioreactors for Tissue Engineering," 9th Annual Meeting of Japanese Society for Tissue Engineering, Kyoto, Japan, September 8, 2006.
432. M.C. Hacker\*, J.D. Kretlow, L. Klouda, B.B. Ma, and A.G. Mikos, "Synthesis and Characterization of Novel Calcium-Binding Macromers for Injectable Tissue Engineering," Annual BMES Fall Meeting, Chicago, Illinois, October 13, 2006.
433. A. Haesslein, M.C. Hacker\*, H. Ueda, D.M. Ammon, R.N. Borazjani, J.F. Kunzler, J.C. Salamone, and A.G. Mikos, "Long-Term Release of Glaucoma Therapeutics from Photo-Crosslinked Poly(Propylene Fumarate) Matrices," Annual BMES Fall Meeting, Chicago, Illinois, October 14, 2006.
434. A.G. Mikos\*, "Delivery of DNA, Proteins, and Cells with Injectable Hydrogels," US-Japan Joint Topical Conference on Medical Engineering, Drug Delivery Systems and Therapeutic Systems, Annual AIChE Meeting, San Francisco, California, November 13, 2006.
435. E. Christenson\*, W. Soofi, N. Cameron, and A.G. Mikos, "Biodegradable Fumarate-Based PolyHIPEs as Tissue Engineering Scaffolds," Annual AIChE Meeting, San Francisco, California, November 14, 2006.
436. M.B. Murphy\* and A.G. Mikos, "The Hydroxyapatite Affinity and Binding Kinetics of Peptides Modified with Bisphosphonates, Poly(Aspartic Acid), and Poly(Glutamic Acid)," Annual AIChE Meeting, San Francisco, California, November 14, 2006.
437. M.C. Hacker\*, L. Klouda, B.B. Ma, J.D. Kretlow, and A.G. Mikos, "Novel Thermally Responsive Macromers for the Fabrication of Injectable, *In Situ* Crosslinkable Hydrogels," Annual AIChE Meeting, San Francisco, California, November 14, 2006.



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438. U. Sharma, Q. Pham\*, and A.G. Mikos, "Flow Perfusion Culture of Marrow Stromal Cells on Electrospun Polycaprolactone Scaffolds," Annual AIChE Meeting, San Francisco, California, November 17, 2006.
439. A.G. Mikos\*, "Injectable Hydrogels for Stem Cell Delivery," 1st International Collaborative Symposium on Stem Cell Research, Seoul, Korea, December 8, 2006.
440. A.G. Mikos\*, "Nanobiomaterials for Tissue Engineering," International Conference on Biomedical and Pharmaceutical Engineering, Singapore, December 11, 2006.
441. A.G. Mikos\*, "Delivery of DNA, Proteins and Cells with Injectable Scaffolds," International Conference on Biomedical and Pharmaceutical Engineering, Singapore, December 12, 2006.
442. A.G. Mikos\*, "Biomaterials in Tissue Engineering," Edith and Peter O'Donnell Award Lecture, Annual Conference of The Academy of Medicine, Engineering and Science of Texas, Austin, Texas, January 4, 2007.
443. A.G. Mikos\*, "Delivery of DNA, Proteins, and Cells with Injectable Hydrogels," Symposium on Musculoskeletal Biology, Stem Cells and Clinical Translation: A Celebration of Arnold Caplan's 65th Birthday, Case Western Reserve University, Cleveland, Ohio, January 12, 2007.
444. H.-H. Chen\*, A.G. Mikos, Q.P. Pham, U. Sharma, and Z.-P. Luo, "Finite Element Analyses of Flow Field in Multilayer Nanofiber/Microfiber Scaffolds," Annual Meeting of Orthopaedic Research Society, San Diego, California, February 11, 2007.
445. E.M. Christenson\*, W. Soofi, N.R. Cameron, and A.G. Mikos, "Biodegradable Fumarate-Based PolyHIPEs as Tissue Engineering Scaffolds," Annual Meeting of Orthopaedic Research Society, San Diego, California, February 11, 2007.
446. E.M. Christenson\*, W. Soofi, J.L. Holmes, N.R. Cameron, and A.G. Mikos, "Biodegradable PolyHIPEs as Tissue Engineering Scaffolds for Craniofacial Reconstruction," Annual Meeting of the International Association for Dental Research, New Orleans, Louisiana, March 23, 2007.
447. S.C.G. Leeuwenburgh\*, J.A. Jansen, and A.G. Mikos, "Functionalization of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels with Finely Dispersed Calcium Phosphate Nanocrystals for Bone-Substituting Purposes," 32nd Annual Meeting of the Society For Biomaterials, Chicago, Illinois, April 19, 2007.
448. H. Park, J.S. Temenoff, and A.G. Mikos\*, "In Vitro Chondrogenic Differentiation of Rabbit Marrow Stromal Cells Encapsulated in Oligo(Poly(Ethylene Glycol) Fumarate) Injectable Hydrogel Composites," 32nd Annual Meeting of the Society For Biomaterials, Chicago, Illinois, April 19, 2007.
449. X. Shi, B. Sitharaman, Q.P. Pham, J.L. Hudson, L.J. Wilson, J.M. Tour, and A.G. Mikos\*, "In Vitro Cytotoxicity of Single-Walled Carbon Nanotube/Poly(Propylene Fumarate) Nanocomposites," 32nd Annual Meeting of the Society For Biomaterials, Chicago, Illinois, April 19, 2007.
450. E.M. Christenson\*, W. Soofi, J.L. Holmes, N.R. Cameron, and A.G. Mikos, "High Porosity Tissue Engineering Scaffolds by Emulsion Templating," 32nd Annual Meeting of the Society For Biomaterials, Chicago, Illinois, April 20, 2007.
451. F.K. Kasper\* and A.G. Mikos, "Drug Delivery and Bioreactor Strategies in Tissue Engineering," 1st Summer School of the European Chapter of the Tissue Engineering and Regenerative Medicine International Society: Key Elements of Tissue Engineering, Madeira, Portugal, June 3, 2007.

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452. F.K. Kasper\* and A.G. Mikos, "Biomimetic Strategies for Tissue Engineering of Bone," 3rd Marie Curie Cutting Edge InVENTS Conference on Biomineralisation of Polymeric Materials, Bioactive Biomaterials and Biomimetic Methodologies, Madeira, Portugal, June 4, 2007.
453. Q.P. Pham, F.K. Kasper\*, U. Sharma, A.S. Mistry, A.W. Yasko, J.A. Jansen, and A.G. Mikos, "Osteoinductive Capacity and Angiogenicity of an *In Vitro* Generated Extracellular Matrix," 3rd Marie Curie Cutting Edge InVENTS Conference on Biomineralisation of Polymeric Materials, Bioactive Biomaterials and Biomimetic Methodologies, Madeira, Portugal, June 6, 2007.
454. E.W.H. Bodde\*, O.C. Boerman, F.G.M. Russel, A.G. Mikos, P.H.M. Spauwen, and J.A. Jansen, "Bone Response to Cranial Calcium Phosphate Cement Implants with a High and Low Dose of rhBMP-2 in Rats," Tissue Engineering and Regenerative Medicine International Society – North America Conference and Exposition, Toronto, Canada, June 14, 2007.
455. F.K. Kasper, Q.P. Pham, and A.G. Mikos\*, "Generation of Tissue Engineering Scaffolds with a Flow Perfusion Bioreactor," 8th International Bone Fluid Flow Workshop, New York, New York, September 14, 2007.
456. K. Kim\*, D. Dean, A.G. Mikos, and J.P. Fisher, "Effect of Cell Seeding Density on Osteogenic Signaling of Bone Marrow Stromal Cells in 3D Scaffolds," Annual BMES Fall Meeting, Los Angeles, California, September 27, 2007.
457. A.G. Mikos\*, "Biomaterials in Tissue Engineering," Robert A. Pritzker Distinguished Lecturer Award Lecture, Annual BMES Fall Meeting, Los Angeles, California, September 28, 2007.
458. S. Young\*, C. Nguyen, J.D. Kretlow, A.G. Mikos, and M. Wong, "Poly(Propylene Fumarate) Scaffolds with Surface Porosity for Space Maintenance of Mandibular Defects," Annual Meeting of the American Association of Oral and Maxillofacial Surgeons, Honolulu, Hawaii, October 11, 2007.
459. C. Nguyen\*, S. Young, J.D. Kretlow, M. Wong, and A.G. Mikos, "Soft Tissue Response to Implantation of Hybrid Poly(Propylene Fumarate) Scaffolds in a Critical Size Mandibular Defect," Annual Meeting of the American Association of Oral and Maxillofacial Surgeons, Honolulu, Hawaii, October 11, 2007.
460. A.G. Mikos\*, "Nanobiomaterials for Tissue Engineering," Integrated Research Team Meeting on Nanotechnology Solutions for Long-Term Implantable Devices, Houston, Texas, October 24, 2007.
461. A.S. Mistry, Q. Pham, C. Schouten, T. Yeh, A.G. Mikos\*, and J.A. Jansen, "*In Vivo* Hard Tissue Response and Degradation of Porous Fumarate-Based Polymer/Alumoxane Nanocomposites for Bone Tissue Engineering," Annual AIChE Meeting, Salt Lake City, Utah, November 5, 2007.
462. A.G. Mikos\*, "Biomaterials for Drug Delivery and Tissue Engineering," Annual Meeting of the Dutch Society for Biomaterials and Tissue Engineering, Lunteren, The Netherlands, December 12, 2007.
463. L. Klouda\*, M.C. Hacker, J.D. Kretlow, and A.G. Mikos, "Synthesis and Characterization of Novel Thermoresponsive, Chemically Crosslinkable Macromers for the Fabrication of *In Situ* Forming Hydrogels," 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 2008.

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464. J.D. Kretlow\*, M.C. Hacker, L. Klouda, and A.G. Mikos, "Injectable Calcium-Binding Macromers for Bone Tissue Engineering," 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 2008.
465. H. Park\*, J.S. Temenoff, Y. Tabata, A.I. Caplan, R.M. Raphael, J.A. Jansen, and A.G. Mikos, "Effect of Dual Growth Factor Delivery on Chondrogenic Differentiation of Rabbit Marrow Mesenchymal Stem Cells Encapsulated in Injectable Hydrogel Composites," 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 2008.
466. X. Guo, H. Park\*, and A.G. Mikos, "*In Vitro* Osteogenic Differentiation of Rabbit Mesenchymal Stem Cells Encapsulated in Biodegradable Hydrogel Composites," 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 2008.
467. A.G. Mikos\*, "Nanobiomaterials for Bone Tissue Engineering," Conference on Regenerative Endodontics, Nova Southeastern University, Fort Lauderdale, Florida, February 22, 2008.
468. A.G. Mikos\*, "Synthetic Scaffolds for Tissue Engineering," 10th Anniversary Celebration of Korean Tissue Engineering and Regenerative Medicine Society Meeting, Seoul, Korea, May 23, 2008.
469. J. Liao\*, X. Guo, Q.P. Pham, F.K. Kasper, and A.G. Mikos, "Effect of Transforming Growth Factor- $\beta$ 1 on Chondrogenic Differentiation of Mesenchymal Stem Cells Cultured on Biodegradable Microfiber Scaffolds," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008.
470. S.A. Chew\*, M.C. Hacker, and A.G. Mikos, "Biodegradable Hyperbranched Polycationic Polymers with Varying Hydrophilic Spacer Length for Gene Delivery," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008.
471. A.M. Martins, Q.P. Pham, P.B. Malafaya, R.A. Sousa, M.E. Gomes, F.K. Kasper, R.L. Reis\*, and A.G. Mikos, "The Role of Lipase and  $\alpha$ -amylase in both the Degradation of Starch/Polycaprolactone Fiber Meshes and the Osteogenic Differentiation of Rat Marrow Stromal Cells," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008.
472. A.G. Mikos\* and F.K. Kasper, "Tissue Engineering and Its Future Perspective," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008.
473. S. Danti\*, D. D'Alessandro, A.S. Mistry, A. Saraf, S. Berrettini, and A.G. Mikos, "Tissue Engineered Constructs as Human Ossicular Chain Replacements," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008.
474. M. van der Zande\*, B. Sitharaman, A. Veltien, X.F. Walboomers, J.S. Ananta, L.J. Wilson, A.G. Mikos, A. Heerschap, and J.A. Jansen, "*In Vivo* MRI Visualization of the Distribution Pattern of Gadolinium Labeled Single Walled Carbon Nanotubes Released from Subcutaneous Implanted Poly(Lactic-co-Glycolic Acid) Scaffolds in Rats," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008.
475. L. Klouda\*, M.C. Hacker, J.D. Kretlow, and A.G. Mikos, "Novel Thermoresponsive, *In Situ* Crosslinkable Hydrogels for Tissue Engineering," 8th World Biomaterials Congress, Amsterdam, The Netherlands, June 1, 2008.
476. B. Sitharaman, X. Shi, X.F. Walboomers, H. Liao, V. Cuijpers, L.J. Wilson, A.G. Mikos\*, and J.A. Jansen, "Ultra-Short Single Walled Carbon Nanotube/Biodegradable Polymer

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- Nanocomposites for Bone Tissue Engineering: Hard and Soft Tissue Responses in a Rabbit Model,” 8th World Biomaterials Congress, Amsterdam, The Netherlands, June 1, 2008.
477. A.G. Mikos\*, “From Material to Tissue: Biomaterial Development and Tissue Engineering,” A Celebration of Excellence in Scientific and Engineering Achievement on the Occasion of Nicholas Peppas’ 60th Birthday, Austin, Texas, August 8, 2008.
  478. A.G. Mikos\*, “Bioengineering Technologies in Regenerative Medicine,” Annual Symposium of Baylor College of Medicine Medical Scientist Training Program, Galveston, Texas, August 23, 2008.
  479. F.K. Kasper, R.A. Thibault, and A.G. Mikos\*, “Mineralized Extracellular Matrix Constructs for Bone Tissue Engineering,” 10th International Symposium on Biomineralization, Lianyungang, China, September 3, 2008.
  480. R.A. Thibault\*, F.K. Kasper, and A.G. Mikos, “Extracellular Matrix Constructs Enhance the Osteogenic Differentiation of Marrow Stromal Cells *In Vitro*,” 3rd Aegean Conference on Tissue Engineering, Rhodes, Greece, September 22, 2008.
  481. A.G. Mikos\*, Z.S. Patel, and S. Young, “Multi-Growth Factor Controlled Release for Bone Tissue Engineering,” 3rd Aegean Conference on Tissue Engineering, Rhodes, Greece, September 24, 2008.
  482. F.K. Kasper\*, X. Guo, H. Park, and A.G. Mikos, “Growth Factor and Cell Delivery for Cartilage Tissue Engineering,” 3rd Aegean Conference on Tissue Engineering, Rhodes, Greece, September 24, 2008.
  483. A.G. Mikos\*, “Bioreactor Fabrication of Mineralized Bioactive Constructs for Tissue Engineering,” International Conference on Research Strategy of Tissue Engineering, Jinan, China, October 25, 2008.

\* Speaker

#### **Invited Lectures at Universities and Companies**

1. “Hepatocyte Scaffolding and Liver Regeneration,” Ben Gurion University of the Negev, Department of Chemical Engineering and Bioengineering Program, Beer Sheva, Israel, May 28, 1992.
2. “Liver Regeneration by Hepatocyte Transplantation,” Texas Biotechnology Corporation, Houston, Texas, October 30, 1992.
3. “Tissue Engineering by Cell Transplantation,” Baylor College of Medicine, Department of Medicine, Houston, Texas, February 22, 1993.
4. “Creation of a Liver Organoid by Hepatocyte Transplantation,” Baylor College of Medicine, Department of Pathology, Houston, Texas, March 23, 1993.
5. “Osteoblast Culture on Biodegradable Polymer Scaffolds to Engineer Bone,” NASA Lyndon B. Johnson Space Center, Houston, Texas, December 6, 1993.
6. “Extracellular Matrix Analogs to Engineer Tissues,” Houston Matrix Assembly, M.D. Anderson Cancer Center, Houston, Texas, March 7, 1994.
7. “Polymer Processing Technology for Organ Regeneration,” ETH Zürich, Chair of Biocompatible Materials Science and Engineering, Zürich, Switzerland, March 11, 1994.
8. “Osteoblast Culture on Biodegradable Polymer Scaffolds to Engineer Bone,” The University of Texas Health Science Center at San Antonio, Department of Orthopaedics, San Antonio, Texas, March 25, 1994.

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9. "Biodegradable Polymer Scaffolds to Engineer Trabecular Bone," The University of Michigan, Bioengineering Program, Ann Arbor, Michigan, January 23, 1995.
10. "Engineering Human Tissues," Southeast Texas Chapter of AIChE, Beaumont, Texas, March 14, 1995.
11. "Orthopaedic Biomaterials for Bone Regeneration and Repair," Osteobiologics, San Antonio, Texas, June 15, 1995.
12. "Biodegradable Polymer Scaffolds for Tissue Engineering," CytoTherapeutics, Providence, Rhode Island, October 6, 1995.
13. "Engineering Human Tissue," University of Houston, Bioengineering Research Center, Houston, Texas, November 3, 1995.
14. "Engineering Trabecular Bone Using Biodegradable Polymers," Texas Medical Center Chapter of Sigma Xi, Houston, Texas, November 21, 1995.
15. "Engineering Trabecular Bone Using Biodegradable Polymers," University of Houston, Department of Chemical Engineering, Houston, Texas, December 1, 1995.
16. "Bone Tissue Engineering Using Biodegradable Polymer Scaffolds," Cornell University, Department of Chemical Engineering, Ithaca, New York, February 13, 1996.
17. "Bone Tissue Engineering," State University of New York at Buffalo, Department of Chemical Engineering, Buffalo, New York, May 28, 1996.
18. "Bone Tissue Engineering," Princeton University, Department of Chemical Engineering and Princeton Materials Institute, Princeton, New Jersey, September 18, 1996.
19. "Bone Tissue Engineering," Center for Bio/Molecular Science and Engineering, Naval Research Laboratory, Washington, D.C., October 4, 1996.
20. "Tissue Engineering," The University of Texas Health Science Center at San Antonio, Department of Surgery, Division of Oral & Maxillofacial Surgery, San Antonio, Texas, December 19, 1996.
21. "Bone Tissue Engineering Using Biodegradable Polymer Scaffolds," The Cleveland Clinic Foundation, Department of Biomedical Engineering, Cleveland, Ohio, April 25, 1997.
22. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Johnson&Johnson Corporate Biomaterials Center, Soverville, New Jersey, June 2, 1997.
23. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Osiris Therapeutics, Baltimore, Maryland, July 16, 1997.
24. "Biodegradable Polymers for Peripheral Nerve and Vascular Tissue Engineering," Princeton University, Department of Chemical Engineering and Princeton Materials Institute, Princeton, New Jersey, September 24, 1997.
25. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," University of Maryland, Department of Chemical Engineering, College Park, Maryland, October 14, 1997.
26. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," University of Toledo, Department of Bioengineering, Toledo, Ohio, October 31, 1997.
27. "Biodegradable Polymers for Tissue Engineering," University of California Santa Barbara, Department of Chemical Engineering, Santa Barbara, California, November 6, 1997.
28. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Texas A&M University, Department of Chemical Engineering, College Station, Texas, December 5, 1997.

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29. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Oklahoma State University, Department of Chemical Engineering, Stillwater, Oklahoma, February 12, 1998.
30. "Biodegradable Polymers for Tissue Engineering," Pittsburgh Tissue Engineering Initiative, Pittsburgh, Pennsylvania, February 19, 1998.
31. "Engineering Human Tissue," The Dean's Series: The School of Engineering, Rice University, Houston, Texas, April 15, 1998.
32. "Biodegradable Polymers for Tissue Engineering," University of Utah, Department of Pharmaceutics and Pharmaceutical Chemistry, Salt Lake City, Utah, May 13, 1998.
33. "Biodegradable Polymers for Tissue Engineering," University of Toronto, Department of Chemical Engineering and Applied Chemistry, Toronto, Canada, June 3, 1998.
34. "Biodegradable Materials for Tissue Engineering," Valley Tissue Engineering Center, Albert-Ludwigs-University, Department of Plastic and Hand Surgery, Freiburg, Germany, July 11, 1998.
35. "Biodegradable Polymers for Tissue Engineering," University of Regensburg, Department of Pharmaceutical Technology, Regensburg, Germany, July 13, 1998.
36. "Biodegradable Polymers for Tissue Engineering," Pennsylvania State University, Department of Chemical Engineering, State College, Pennsylvania, September 22, 1998.
37. "Engineering Human Tissue," Rice University, Department of Mathematics, Houston, Texas, October 15, 1998.
38. "Injectable Biomaterials for Tissue Engineering," Purdue University, Department of Industrial and Physical Pharmacy, West Lafayette, Indiana, October 27, 1998.
39. "Biodegradable Polymers for Tissue Engineering," State University of New York at Buffalo, Department of Chemical Engineering, Buffalo, New York, April 9, 1999.
40. "Engineering Human Tissue," Rice University, Alumni College 1999, Houston, Texas, April 18, 1999.
41. "Injectable Biomaterials for Tissue Engineering," Novartis Pharmaceuticals, Summit, New Jersey, April 27, 1999.
42. "Bone Tissue Engineering Using Biodegradable Polymer Scaffolds," Johns Hopkins University, Department of Chemical Engineering, Baltimore, Maryland, May 26, 1999.
43. "Orthopaedic Tissue Engineering," Korea Research Institute of Chemical Technology, Taejon, Korea, September 14, 1999.
44. "Synthetic Polymers as Non-Viral Vectors for Gene Therapy," Shell Center for Gene Therapy, Baylor College of Medicine, Houston, Texas, October 5, 1999.
45. "Synthetic Biomaterials as Non-Viral Vectors for Gene Therapy," Distinguished Lecture Series in Nanomaterials and Biomaterials, University of Maryland, Department of Materials and Nuclear Engineering, College Park, Maryland, November 12, 1999.
46. "Synthetic Polymers for Tissue Engineering and Gene Therapy," University of Akron, Department of Chemical Engineering, Akron, Ohio, February 10, 2000.
47. "Synthetic Polymers for Tissue Engineering and Gene Therapy," Northwestern University, Department of Chemical Engineering, Evanston, Illinois, April 6, 2000.
48. "Synthetic Polymers for Tissue Engineering and Gene Therapy," Translation of Biomaterials Research into Biotechnology Symposium, Materials Research Science and Engineering Center, University of Chicago, Chicago, Illinois, April 8, 2000.
49. "Injectable Biodegradable Polymers for Tissue Engineering," Chrysalis BioTechnology, Galveston, Texas, May 31, 2000.

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50. "Synthetic Polymers for Tissue Engineering and Gene Therapy," University of Nijmegen, Department of Biomaterials, Nijmegen, The Netherlands, June 23, 2000.
51. "Injectable Biodegradable Polymers for Tissue Engineering," Becton Dickinson Technologies, Research Triangle Park, North Carolina, July 21, 2000.
52. "Synthetic Polymers for Tissue Engineering and Gene Therapy," Kyoto University, Institute for Frontier Medical Sciences, Kyoto, Japan, July 31, 2000.
53. "Injectable Biomaterials for Guided Bone Regeneration," Tokyo Women's Medical University, Institute of Biomedical Engineering, Tokyo, Japan, November 18, 2000.
54. "Synthetic Biomaterials as Non-Viral Vectors for Gene Delivery," Parker H. Petit Institute for Bioengineering and Bioscience, Georgia Institute of Technology, Atlanta, Georgia, January 25, 2001.
55. "Bioreactor Design for Three-Dimensional Cell-Polymer Constructs in Bone Tissue Engineering," The University of Michigan, Department of Biomedical Engineering, Ann Arbor, Michigan, March 5, 2001.
56. "Synthetic Biodegradable Polymers for Tissue Engineering," American Society of Materials International, Houston Chapter, Houston, Texas, March 6, 2001.
57. "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," Disc Dynamics, Inc., Minnetonka, Minnesota, April 24, 2001.
58. "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," Mayo Clinic, Biomedical Engineering Program, Rochester, Minnesota, April 27, 2001.
59. "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," University of South Carolina, Department of Chemical Engineering, Columbia, South Carolina, May 10, 2001.
60. "Poly(Ethylenimine) as a Gene Delivery Vehicle and Its Potential for Gene Therapy," Baylor College of Medicine, Department of Molecular Physiology and Biophysics, Houston, Texas, October 16, 2001.
61. "Biomimetic Hydrogels for Bone Tissue Engineering," Purdue University, NSF Program on Therapeutic and Diagnostic Devices, School of Chemical Engineering, and Department of Biomedical Engineering, West Lafayette, Indiana, October 25, 2001.
62. "Synthetic Biodegradable Polymers for Bone Tissue Engineering," Medtronic Sofamor Danek, Memphis, Tennessee, January 29, 2002.
63. "Synthetic Biodegradable Polymers for Bone Tissue Engineering," Baylor College of Medicine, Division of Plastic Surgery, Houston, Texas, February 1, 2002.
64. "Bioreactor Technology for Bone Tissue Engineering," University of Pittsburgh, McGowan Institute for Regenerative Medicine, Pittsburgh, Pennsylvania, February 6, 2002.
65. "Bioreactor Technology for Bone Tissue Engineering," Arizona State University, Department of Bioengineering, Tempe, Arizona, February 20, 2002.
66. "Injectable, *In Situ* Crosslinkable, Biodegradable Polymers for Peptide and Gene Delivery," Bausch & Lomb, Rochester, New York, June 11, 2002.
67. "Bioreactor Technology for Bone Tissue Engineering," Rensselaer Polytechnic Institute, Department of Biomedical Engineering, Troy, New York, October 9, 2002.
68. "Engineering Human Tissue," Baylor College of Medicine, Medical Scientist Training Program, Houston, Texas, October 17, 2002.

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69. "Bioreactor Technology for Bone Tissue Engineering," Michigan State University, Department of Chemical Engineering and Materials Science, East Lansing, Michigan, February 6, 2003.
70. "Bone Tissue Engineering Using Biodegradable Polymers," Baylor College of Medicine, Department of Pediatrics, Endocrine and Metabolism Section, Houston, Texas, March 13, 2003.
71. "Synthetic Polymers for Tissue Engineering," Carnegie Mellon University, Department of Biomedical Engineering, Pittsburgh, Pennsylvania, June 4, 2003.
72. "Intraocular Delivery Systems for Fluocinolone Acetonide Using Biodegradable Fumarate-Based Polymers," Bausch & Lomb, Rochester, New York, July 30, 2003.
73. "Fluid Flow in Tissue Engineering of 3D Bone Scaffolds," Case Western Reserve University, Department of Biomedical Engineering, Cleveland, Ohio, September 19, 2003.
74. "Tissue Engineering," NWO I Huygens Lecture, Netherlands Organization for Scientific Research, The Hague, The Netherlands, November 5, 2003.
75. "Fluid Flow in Tissue Engineering of 3D Bone Scaffolds," Advanced Materials Research Center, Nanyang Technological University, Singapore, December 3, 2003.
76. "Fluid Flow in Tissue Engineering of 3D Bone Scaffolds," Duke University, Department of Biomedical Engineering, Durham, North Carolina, January 8, 2004.
77. "New Scaffolding Technologies for Tissue Engineering," Baylor College of Medicine, Center for Tissue Repair, Regeneration and Engineering, Houston, Texas, February 6, 2004.
78. "Tissue Engineering," Rice University, Department of Mechanical Engineering and Materials Science, Houston, Texas, February 6, 2004.
79. "Synthetic Polymers for Tissue Engineering," ETH Zürich, Institute of Chemical and Bioengineering, Zürich, Switzerland, February 23, 2004.
80. "Biodegradable, *In Situ* Crosslinkable Hydrogels as Injectable Carriers for Cell and Drug Delivery," Roger Malkin Distinguished Lecture, Mississippi State University, Mississippi State, Mississippi, March 4, 2004.
81. "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," Procter and Gamble Lecture, Iowa State University, Department of Chemical Engineering, Ames, Iowa, April 22, 2004.
82. "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," Institute of Bioengineering and Nanotechnology, Singapore, June 3, 2004.
83. "Injectable Hydrogels for Cell and Growth Factor Delivery," Genzyme Corporation, Cambridge, Massachusetts, August 31, 2004.
84. "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," Tulane University, Department of Chemical and Biomolecular Engineering, New Orleans, Louisiana, September 10, 2004.
85. "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," University of Iowa, College of Pharmacy, Iowa City, Iowa, September 20, 2004.
86. "Engineering Human Tissue," Rice University, Alumni College 2005, Houston, Texas, February 27, 2005.
87. "Injectable Biodegradable Polymeric Scaffolds for Tissue Engineering," University of California, Irvine, Department of Biomedical Engineering, Irvine, California, April 14, 2005.



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88. "Biodegradable Polymers for Orthopaedic Tissue Engineering," Stryker Orthopaedics Corporation, Mahwah, New Jersey, May 17, 2005.
89. "Modulation of Cell Differentiation in Bone Tissue Engineering Constructs Cultured in a Bioreactor," Symposium on New Trends in Biomaterials-Tissue Engineering, National University of Singapore, Singapore, July 9, 2005.
90. "Biodegradable Polymeric Drug Delivery Systems for Ocular Applications," Bausch & Lomb, Rochester, New York, August 4, 2005.
91. "Injectable Biodegradable Polymer Scaffolds for Tissue Engineering," Nano-scale Delivery of Drugs, Genes, and Cells-The Changing Face of Biomaterials, Pharmaceutical Sciences Symposium Honoring the Career of Professor Joseph R. Robinson, University of Wisconsin, Madison, Wisconsin, October 14, 2005.
92. "Injectable Biodegradable Polymer Scaffolds for Tissue Engineering," Columbia University, Department of Biomedical Engineering, New York, New York, November 11, 2005.
93. "Development of an Osteoinductive Bone Graft," State University of New York at Stony Brook, Department of Biomedical Engineering, Stony Brook, New York, February 15, 2006.
94. "Bioreactors for Bone Tissue Engineering," The University of Texas M.D. Anderson Cancer Center, The Bone Disease Program of Texas, Houston, Texas, February 17, 2006.
95. "Tissue Engineering at Rice," Rice University, Alumni College 2006, Houston, Texas, March 5, 2006.
96. "Development of an Osteoinductive Bone Graft," Baylor College of Medicine, Department of Orthopaedic Surgery, Houston, Texas, March 17, 2006.
97. "Bioreactors for Bone Tissue Engineering," Johns Hopkins University, Department of Materials Science and Engineering, Baltimore, Maryland, April 5, 2006.
98. "Bioreactors for Bone Tissue Engineering," Vanderbilt University, Department of Chemical Engineering, Nashville, Tennessee, April 10, 2006.
99. "Development of an Osteoinductive Bone Graft," Koret Foundation Lecture, University of California Davis, Department of Orthopaedic Surgery, Sacramento, California, June 15, 2006.
100. "Injectable Hydrogel Composites for Articular Cartilage Tissue Engineering," Kyoto University, Department of Biomaterials, Field of Tissue Engineering, Institute for Frontier Medical Sciences, Kyoto, Japan, September 9, 2006.
101. "Bioreactors for Tissue Engineering," The Cleveland Clinic, Clinical Tissue Engineering Center, Cleveland, Ohio, September 21, 2006.
102. "Development of an Osteoinductive Bone Graft," Georgia Institute of Technology, Coulter Department of Biomedical Engineering and Parker H. Petit Institute for Bioengineering and Bioscience, Atlanta, Georgia, October 5, 2006.
103. "Development of an Osteoinductive Bone Graft," University of Virginia, Department of Biomedical Engineering, Charlottesville, Virginia, December 1, 2006.
104. "Biomaterials for Tissue Engineering," DSM Biomedical Materials, Geleen, The Netherlands, March 8, 2007.
105. "Nanobiomaterials for Tissue Engineering," Purdue University, School of Chemical Engineering, West Lafayette, Indiana, March 20, 2007.

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106. "Biomaterials for Tissue Engineering," Shanghai Jiao Tong University, Shanghai Ninth People's Hospital, National Tissue Engineering Center of China, Shanghai, China, May 9, 2007.
107. "Biomaterials for Tissue Engineering," Tsinghua University, School of Materials Science and Engineering, Beijing, China, May 11, 2007.
108. "Biomaterials for Tissue Engineering," Fourth Military Medical University, School of Stomatology, Center for Tissue Engineering, Xi'an, China, May 17, 2007.
109. "Nanobiomaterials for Tissue Engineering," Baylor University, Department of Chemistry and Biochemistry, Waco, Texas, September 7, 2007.
110. "Nanobiomaterials for Tissue Engineering," University of Pennsylvania, Department of Bioengineering, Philadelphia, Pennsylvania, September 13, 2007.
111. "Biomaterials in Tissue Engineering," James Gibb Johnson Distinguished Visiting Lecture, University of Tennessee Health Science Center, Department of Biomedical Engineering and Imaging, Memphis, Tennessee, October 12, 2007.
112. "Biomaterials in Tissue Engineering," University of Dayton, Center for Tissue Regeneration and Engineering, Dayton, Ohio, November 1, 2007.
113. "Nanobiomaterials for Bone Tissue Engineering," Centenary Seminar Series Lecture, Imperial College, Department of Chemical Engineering and Chemical Technology, London, England, November 14, 2007.
114. "Bone Regeneration Using Biodegradable Polymers," Baylor College of Dentistry, Department of Biomedical Sciences, Dallas, Texas, February 13, 2008.
115. "Bone Tissue Engineering," Rice University, Susanne M. Glasscock School of Continuing Studies, Houston, Texas, March 13, 2008.
116. "Synthetic Scaffolds for Tissue Engineering," Texas A&M University, Department of Biomedical Engineering, College Station, Texas, March 17, 2008.
117. "Biomaterials in Tissue Engineering," Robert A. Pritzker Distinguished Lecture, Illinois Institute of Technology, Department of Biomedical Engineering, Chicago, Illinois, March 28, 2008.
118. "Polymer Scaffolds for Bone Tissue Engineering," University of California Santa Barbara, Department of Chemical Engineering, Santa Barbara, California, April 3, 2008.
119. "Synthetic Scaffolds for Bone Tissue Engineering," University of Illinois at Urbana-Champaign, Department of Chemical and Biomolecular Engineering, Urbana, Illinois, April 8, 2008.
120. "Synthetic Scaffolds for Tissue Engineering," Laval University, Laboratoire d'Organogénèse Expérimentale, Québec, Canada, May 5, 2008.
121. "Controlled Delivery of Angiogenic and Osteogenic Growth Factors for Bone Tissue Engineering," Seoul National University Hospital, Department of Orthopedic Surgery, Seoul, Korea, May 23, 2008.
122. "Scaffolds for Tissue Engineering," Academy of Military Medical Sciences, Tissue Engineering Research Center, Beijing, China, September 1, 2008.
123. "Mineralized Extracellular Matrix Constructs for Bone Tissue Engineering," University of California Santa Barbara, Department of Chemical Engineering, Santa Barbara, California, October 8, 2008.
124. "Synthetic Scaffolds for Tissue Engineering," University of Houston, Department of Pharmacological and Pharmaceutical Sciences, Houston, Texas, October 22, 2008.

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**Chair of Meetings**

1. Materials Research Society Fall Meeting (Forty-One Symposia), Boston, Massachusetts, November 27 - December 1, 2000.
2. Aegean Conference on Tissue Engineering Science (Eight Sessions), Myconos, Greece, May 19-23, 2002.
3. Engineering in Medicine and Biology Society - Biomedical Engineering Society Joint Conference (Two Hundred Fourteen Sessions), Houston, Texas, October 23-26, 2002.
4. Second Aegean Conference on Tissue Engineering (Twelve Sessions), Crete, Greece, May 22-27, 2005.
5. Annual Meeting and Exposition of Controlled Release Society (Forty-Four Sessions), Vienna, Austria, July 22-26, 2006.
6. A Celebration of Excellence in Scientific and Engineering Achievement on the Occasion of Nicholas Peppas' 60th Birthday (Four Sessions), Austin, Texas, August 8, 2008.
7. Third Aegean Conference on Tissue Engineering (Twelve Sessions), Rhodes, Greece, September 21-26, 2008.

**Organizer of Topical Conferences**

1. "Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering" (Thirteen Sessions), Annual AIChE Meeting, Los Angeles, California, November 17-19, 1997.

**Organizer of Symposia**

1. "Tissue Engineering" (Two Sessions), 11th Annual HSEMB Conference, Houston, Texas, February 11, 1993.
2. "Preparation and Physicochemical Characterization of Hydrogels" (Four Sessions), National ACS Meeting, Denver, Colorado, March 31 - April 1, 1993.
3. "Biomaterials for Drug and Cell Delivery" (Five Sessions), MRS Fall Meeting, Boston, Massachusetts, November 29 - December 1, 1993.
4. "First International Congress on Cellular Therapy & Tissue Engineering" (Six Sessions), BioEast'95, Washington, D.C., January 9-10, 1995.
5. "Polymers in Medicine and Pharmacy" (Six Sessions), MRS Spring Meeting, San Francisco, California, April 17-19, 1995.
6. "Cells at Interfaces" (Four Sessions), National ACS Meeting, San Francisco, California, April 16-17, 1997.
7. "Biomaterials Regulating Cell Function and Tissue Development" (Three Sessions), MRS Spring Meeting, San Francisco, California, April 13-14, 1998.
8. "ACS Award in Polymer Chemistry Honoring Robert Langer: Synthesis and Characterization of Polymers for Biomaterials and Drug Delivery Carriers" (Two Sessions), National ACS Meeting, Anaheim, California, March 22, 1999.
9. "Frontiers of Materials Research" (Four Sessions), MRS Fall Meeting, Boston, Massachusetts, November 27 - December 1, 2000.
10. "Tissue Engineering" (Thirteen Sessions), Annual BMES Fall Meeting, Durham, North Carolina, October 4-7, 2001.

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11. "Molecular, Cellular and Tissue Engineering" (Four Sessions), 25th Annual HSEMB Conference, Houston, Texas, February 8, 2008.

#### **Organizer of Workshops**

1. "Tissue Engineering" (Two Sessions), 5th World Biomaterials Congress, Toronto, Canada, May 29, 1996.
2. "Bioartificial Tissues," ASME Summer Bioengineering Conference, Sunriver, Oregon, June 14, 1997.
3. "Biodegradable Polymers - From Monomer to the Clinic," 6th World Biomaterials Congress, Kamuela, Hawaii, May 16, 2000.
4. "Tissue Engineering: The Essential Elements," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, April 30, 2003.
5. "Nanobiomaterials Applications in Orthopaedics," 52nd Annual Meeting of the Orthopaedic Research Society, Chicago, Illinois, March 20, 2006.

#### **Chair of Sessions**

1. "Biomaterials for Organ Regeneration," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
2. "Cell-Based Therapies and Artificial Organs," Annual AIChE Meeting, Miami Beach, Florida, November 4, 1992.
3. "Tissue Engineering I: Cell Adhesion," 11th Annual HSEMB Conference, Houston, Texas, February 11, 1993.
4. "Tissue Engineering II: Tissue Replacement and Remodeling," 11th Annual HSEMB Conference, Houston, Texas, February 11, 1993.
5. "Preparation and Physicochemical Characterization of Hydrogels: Structure," National ACS Meeting, Denver, Colorado, March 31, 1993.
6. "Preparation and Physicochemical Characterization of Hydrogels: Structure and Properties," National ACS Meeting, Denver, Colorado, April 1, 1993.
7. "Preparation and Physicochemical Characterization of Hydrogels: Structure and Applications," National ACS Meeting, Denver, Colorado, April 1, 1993.
8. "Biomaterials Processing," The Monte Verità Conference 1993 on Biocompatible Materials Systems, Ascona, Switzerland, October 12, 1993.
9. "Biomaterials Posters," Annual AIChE Meeting, St. Louis, Missouri, November 8, 1993.
10. "Biomaterials for Repair or Replacement of Tissues," Annual AIChE Meeting, St. Louis, Missouri, November 8, 1993.
11. "Tissue Scaffolding and Regeneration," MRS Fall Meeting, Boston, Massachusetts, November 29, 1993.
12. "Receptor-Mediated Cell Adhesion, Cell-Biomaterial Interactions, and Cell Encapsulation," MRS Fall Meeting, Boston, Massachusetts, November 30, 1993.
13. "Biomaterials Characterization and Orthopedic Biomaterials," MRS Fall Meeting, Boston, Massachusetts, December 1, 1993.
14. "Biomaterials," 12th Annual HSEMB Conference, Houston, Texas, February 10, 1994.
15. "Tissue Engineering," 12th Annual HSEMB Conference, Houston, Texas, February 11, 1994.